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Agriculture, Live Stock and Rural Economy.

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No 5.

Our Paris Letter.

Regular Correspondence.

PARIS, Mar. 16, 1882.

The cattle show at the Palais de l'Industrie continues to attract large numbers of visitors. To the true Parisian, for whom the outside world scarcely exists, there is a strange fascination in the long rows of sturdy cattle, the pens of neatly clipped sheep and the cages of mammoth poultry. He gazes on the specimens with something of the awe with which he regards the wild animals in the Jardin des Plantes, and fairly stands aghast before the enormous beast from Normandy, standing as it does, more than six feet high, and weighing nearly a ton and a half. The machinery exhibits also attracts large crowds of admirers. Among the visitors to-day, was President Grevy, who, accompanied by M. and Madame Wilson, and General Pittie, was received at the entrance by M. de Mahy, the new Minister of Agriculture and several officers connected with the department. The President spent some time inspecting the many objects of interest in the various sections. The march of improvement in the manufacture of labor earning machinery become more evident every year. Implements and machinery are shown for perfecting and accelerating the work of the farmer, the wine grower and the peasant proprietor. The latter especially has been looked after of late years. Small holders who count their acres only by the score, are offered light, handy threshing machines, driven by horse power, reapers and mowers, requiring the

services of only a single horse, where formerly, large and costly machines were alone obtainable. Another admirable feature is the growing system of combining implements hitherto sold separately at high prices. Reaping and binding are now carried on at one operation, with the rapidity of an ordinary reaping machine. The Americans continue to take the lead in the manufacture of these ingenious apparatus, by means of which standing grain is cut and bound in sheaves at the rate of one acre per hour, with no other assistance than that of one man and a pair of horses. The simplest implement of the kind manufactured by Mr. W. A. Wood, and exhibited on the stand of Mr. Pitter, among a host of other labor saving inventions, forms a centre of attraction, as the sheaves are turned out, securely bound with twine, in almost mathematical order, while the McCormick "binder" also finds a number of French admirers.

Crop Estimates.

Cereal estimates of the Department of Agriculture of the crops of 1881, as compared with those of 1880, show a reduction of 31 per cent. in corn, 22 in wheat, 27 in rye and 9 in barley. The product of oats was about 1,400,000 bushels less than the previous year. Aggregate product, all cereals, 2,063,029.570 bushels, against 2,718,193.501—decrease, 24 per cent. Values are in round millions, as follows: Corn, \$759,000,000; wheat, \$453,000,000; oats, \$193,000,000; rye, \$19,000,000; barley, \$33,000,000; buckwheat, \$8,000,000—total, \$1,465,000,000, against \$1,361,000, in 1880. Thus it appears that while the aggregate yield of all crops in 1881, was one-fourth less than in 1880, the total value was over \$100,000,000 greater.

Farm Work for May.

It is unnecessary for us to remind the farmer that this is a busy time and requires all the energy and industry at command to be diligently exercised, if it is desired to make the farm a paying institution this year. We therefore give the views of the MARYLAND FARMER as to some of the matters which require particular attention at this season.

The Root Crops.

Prepare the ground for root crops at once, if it has not been done before. Select good soil that is light, rather than stiff or heavy. Spread over it 20 tons per acre of well rotted manure and plow the ground deep. Harrow it well, then sow 200 or 300 lbs of some good phosphate or dissolved S. C. Rock, harrow it in and get the ground in fine order. Sow sugar beets, mangels, parsnips, carrots, and leave a space or somewhere else prepare, in like manner now, for Ruta Baga turnips to be sown about the first of June. Plant potatoes for general crop this month. Follow directions lately given in *Maryland Farmer*.

White Wash or Colored Wash for Fences and Buildings.

If this has not been attended to before, it should be done now or during summer, for it not only adds much to the appearance of a place, but is a tributary to the health and comfort of the occupants of a farm, to have the fences, out-buildings, hen houses and stables, whitewashed inside as well as outside. It is not well to have too much glaring white, it looks better to have a more subdued color, and to use such a wash as will last almost as long as paint, and yet be much cheaper. We give a good recipe from the *Maine Farmer*, which has been found to be excellent and permanent in the North.

"For one barrel of color wash—half a bushel of white lime, three pecks of hydraulic cement, ten pounds umber, ten pounds ochre, one pound Venitian red, quarter pound lamp black. Slake the lime, cut the lamp black with vinegar; mix well together; add the cement and fill the barrel with water. Let it stand twelve hours before using, and stir frequently while putting it on. This is not white, but of a light stone color without the glare of white. The color may be changed by adding more or less of the colors named, or other colors. This wash covers well, needing only one coat, and is superior to anything known, excepting oil paint."

Underdraining.

Underdraining or blind ditches made with

tiles, is the most economical, durable and satisfactory way, if properly done, that wet land can be reclaimed, or land which holds water can be made suitable for the production of profitable crops. This can be attended to this month and should not be postponed where it is needed. Such land intended for corn or tobacco ought now to be underdrained, and the crops will repay the expense this season by their increase of production on such land. Besides, so much more land can be brought into cultivation. On most farms, some of the most fertile spots produce nothing for the want of proper draining. There are many acres where ditches for tiles can be dug at little cost, by the help of a good team and proper plows. The tiles cost but little, and when the draining is effectual, heavy crops are produced where nothing grew before, and the home of the frogs, and generating pestiferous miasma be converted from unhealthy eye-sores into beauty spots laden with luxuriant grain or grass.

Tobacco.

Keep the beds clean of grass and thin the plants by raking and hand thinning when picking out the weeds and grass, so that if possible the plants do not stand less than half an inch or an inch apart. Condition well the cured crop and take pains in "packing," for the chances are *this year* al tobacco will undergo a very rigid inspection, to satisfy public clamor and the growing fastidiousness of European buyers and manufacturers. The price of good, sound tobacco is likely to be advanced over last year, as the home manufacture has so largely increased, and the consumption would also be greatly increased, but for the fashion of smoking those adulterated and hurtful cigarettes, the use of which should be discouraged by everybody who does not wish our youth to grow up stunted, puny, sickly pigmies.

Plant fewer Acres in Tobacco.

We have so long and often earnestly urged our tobacco planters to alter the old system to suit the changed condition of the times, that we are almost ashamed to write more on the subject, but at the risk of incurring blame or ill-natured comments, we again urge our planters to curtail their usual quantity of land devoted to tobacco, at least one-half, and by spending on that half, as much labor and attention and manure as double the quantity of ground or number of plants would require, we are positive that much more pounds of tobacco can be grown and the price doubled. By such a course 1500 lbs. per acre is as easy to grow as 700 lbs., under the old system,

and those 1500 lbs. would sell for an average of double what 1500 lbs. brings now, grown and handled as it generally is in the old tobacco growing States. We know of what we write, because we are old tobacco planters, and do not advocate the ridiculous ideas advanced by mere theorists who never grew a plant of tobacco in their lives, and seize upon a stray fact here and there, showing the enormous profits from one or two acres, cultivated at a cost of \$200 per acre, on land so fertile that it is valued at \$250 per acre, before \$25 00 worth of manure was applied. This sort of high farming will do for men who have ready means to experiment, but not for the general run of planters.

We say plant no more than you can manure highly with well rotted stable or barnyard manure, and have the means to fertilize with phosphates rich in potash and such salts as are congenial to the plant. Give to the growing crop all the labor necessary to cultivate it well; top it down to 12 or 14 leaves as soon as the "button" appears; keep it clear of suckers and destroy every worm and worm egg, by going over it daily with turkeys, and men, women and children; curing it after the most approved methods, of which we will speak during the season. Strip and assort it carefully, making at least three sorts, conditioning it well, and packing properly in hogsheads or boxes, and it will prove a bonanza, as in the olden time it was to the slaveholder who made quantity more than equal quality, and who had not to contend with thousands of small growers of the weed in every State of the Republic. By thus reducing the crop from 50 acres to 25, you have 25 acres each year for corn or small grain or grass. Thus your profits will be increased and you have an additional 25 acres from which to derive a further revenue. By such a course you would be enabled to keep more stock, raise more manure and annually increase the fertility of your land. This system we suggest would save one-half the expense of hogsheads and cooperage and transportation charges, handling, inspection, &c., which together are no inconsiderable items. Planters would serve their interest to consider this matter now when they are preparing for this year's crop. We know how tempting it is in May and June, when all is bright, plants in abundance, seasons favorable, and other things going on well, to be hopeful of greater gains by planting largely and to forget the drought, the worms that may come in myriads, and other casualties that may sweep off these expectations, leaving nothing to fall back upon. Against this temptation we would

guard you in time. It is like the gambler who risks his all upon a single card, and loses, whereas if he had divided his stakes, he may have won on one what he lost on another, and thus been at least even.

Corn.

This great staple should not be planted until the land has been highly manured and thoroughly cultivated. It is a great feeder and requires a clean, soft bed. It is a luxurious plant and demands frequent and clean culture when growing. Level culture is best. Plaster and ashes are its best helpers. It makes ample returns for all the attention and proper food furnished it. We will not offend common sense by urging that good seed of a good variety be planted, but will advise that a little of some of the new varieties be experimented with.

Millet and Hungarian Grass.

Both can be sowed the last of the month. The land should be good or highly manured and nicely prepared. The same sort of soil suits both, though millet seems to prefer the lighter soil, as it does well on light soils. There is no annual crop except corn or sorghum, which will give greater yields than these two. The quantity of seed sown per acre is 35 or 40 pounds. It yields more seed per acre than Hungarian grass. Millet should be cut just when the heads are formed. If the seeds are allowed to ripen and it is then fed to horses, it is said to have a bad effect on their kidneys.

Jerusalem Artichokes.

Plant some artichokes. We have often urged our farmers to try them. We think if once planted they will not be abandoned soon. In another column of this number of the *Maryland Farmer* will be found a full account of this valuable esculent. We know that besides their value as hog and sheep food, that they make nice pickles and a delicious soup for the table, if made like Irish potato soup.

Sweet Potatoes.

This popular and profitable vegetable should be planted more extensively than it is. From the middle of this month to the middle of June is the best time to plant in this section of country. The best variety is the Nansemond of Va. It is about as cheap to buy the sprouts as to grow them. Well rotted stable manure or cow manure should be put in the rows or hills. If no manure is to be had, large crops have been grown by applying as a top dressing, before the hills or ridges are made, 75 lbs. of sulphate of soda, and 75 lbs. of nitrate of soda, per acre, *i. e.*, 150 lbs.

of the mixture. To all who grow the sweet potato we advise to buy a copy of "Fitz' Sweet Potato culture," published by the Orange Judd Company, for sale in Baltimore by Cushings & Bailey, or can be ordered through the Maryland Farmer. From this valuable little book we give the following seasonable extract.

"Draw the plants from the bed and set them on the fresh, newly prepared ridges or hills. If, when ready to plant, showery weather comes on, we avail ourselves of it and at once set the plants. If we are ready and do not desire to defer the setting, we draw the plants, set the roots as drawn, in boxes containing mud of the consistency of cream; take them to the field and plant late in the evening, firming the earth with the hand, by pressing it around each plant as it is set. Well grown plants possess so many fibrous roots, and live so easily in freshly moved soil, that they often seem to do better in this way than when set after very hard rains, when the soil was too wet; in such condition it will bake hard around the plants. In general, women or boys drop the sets at the proper distance, (say fifteen or eighteen inches apart,) each, followed by the hand who plants it."

Stock of all Kinds.

Let your stock have plenty of salt at this season of the year. Be careful, especially in wet weather, that your cattle, when first put on clover, do not remain at first too long so as to gorge themselves, for they will be likely to have *hoves*, of which, if not speedily relieved, they will die. They should never be turned on rank clover when they are hungry. Sheep are sometimes also attacked with the *hove*.

Calves reared by hand should have a little sugar or molasses added to the scum milk, and that should always be warmed to the temperature of the milk of the cow. Gradually, as the calves get older, habituate them to drink bran and meal scalded and mixed with tepid water, and finally to eat the dry bran and chopt oats; the latter in small quantity twice a day, and plenty of good grass and pure water will make them grow rapidly, adding to their bone and muscle, without causing excess of fat and soft flesh.

Brood mares with young colts, should be well fed and have good pasturage. Every farmer should raise several colts a year. It is profitable and it is generally too much overlooked. Good work horses, roadsters and saddle horses command always high prices at home and abroad. The most profit for the general farmer will be found in rearing from sound, well formed, fair sized common mares, bred to Percheron, Clydes-

dale, or strong, stout, thoroughbred racers. Such progeny is likely to sell high, if well treated from their birth, as heavy draft, or saddle horses, or fast drivers in carriages or light wagons. Never breed to an ill-bred or cold blood, common stallion.

Garden Work for May.

The *Maine Farmer*, in a late issue, speaking of the garden, says:

"A garden will pay a large profit on all the labor bestowed upon it, when bestowed intelligently. It will not only be a source of profit but of health to the family, in delicious food it will supply. The garden is also a place where many valuable experiments may be tried. It is a farm in miniature, where the different varieties of plants, their adaptation to our climate and our soils, and the merits of particular modes of culture may be tried and tested. The garden is the place in which to experiment with the early amber sugar cane, the cow pea, lucerne and many others whose adaptation to our soil and climate are yet in doubt."

The *Maryland Farmer* has long advocated these views. The garden should be the pride and pleasure resort of every farmer who delights in the comfort of his family, and is gratified by the healthful enjoyment afforded by the fruits and vegetables of his garden, to his household and his friends. In the garden he can test the qualities and relative values of different seeds and plants that are annually candidates for popular favor. The trials of new seeds and plants can be made without expense. Fifty cents expended for a pound of potatoes, or corn, or other seeds or plants, will, of a surety, return in the product the cost if nothing more, and perhaps prove a great success, to be in the future turned to account of large profits. By these annual careful tests and comparative trials with older sorts, he may be led to abandon the worthless and adopt the better kind, and thus discover what suits his soil or locality the best. And too, various fertilizing materials can inexpensively be tried until he satisfies himself what article of manure is best suited to the various kinds of vegetation. He can then with greater confidence invest large amounts in particular manure for any one crop. The garden then should be the farmer's experimental field, as well as looked on as the source of family health and comfort. It is in the garden, too, that the farmer can best display his skill and judgment in rotation of crops, to make a small space yield great profit by bearing two or three crops the same year. This system of rotation may then be to a greater or less ex-

tent carried out on the farm, much to the increase of the general product of the farm, with proportionately less labor and less exhaustion of the fertility of the soil—two important points in good farming. Every part of the vegetable garden ought to produce two or three crops during the year, for instance, say a bed sowed in September, in spinage, the crop used in winter and early spring; then in peas, with radishes after peas, corn or celery with lettuce or some small, quick growing crop between the celery rows—here we would have 4 or 5 crops from same bed or plot of ground. But always there can be two crops per year from same land. This can also be done with certain farm crops, particularly if tried with crops for forage, or for ensilage. Rye, oats and corn are crops that can be grown successively in one year on the same ground, if fed when green, or cut and ensilaged.

Peas.—Continue to sow every ten or fourteen days for succession. The Marrows and Champion of England are the best to be sown now.

Beans.—Lima and other pole beans can now be safely planted in the Middle States. Continue to sow a few rows of snap beans. Black wax are best at intervals.

Melons, Cucumbers, Squashes for winter, Symblins, Murtynoes.—All can now be planted. See directions for planting given in full, last month, in Maryland Farmer.

Beets.—More beets may now be planted, and we would now suggest the long blood beet be the sort for planting this month.

Parsnips, Carrots, Salsify and Early Beets, it is presumed are up and growing, and now want thinning, working with the rake or scuffle hoe frequently, to keep down the weeds and make the soil friable.

Corn and Potatoes.—These are, of course, now above ground and require cultivation and a dressing of plaster and ashes mixed, by dusting the plants well with the mixture.

Strawberry beds.—See that these are clean and that the vines do not suffer for moisture. If a drought, water freely. Mulch with straw or cornstalks, or the newly cut grass from the barn.

Lawn.—Keep the young grass cut close. The lawn mower is the best and the cheapest and easiest worked of all implements for this purpose.

Experiment with some of the foreign potatoes.—There has been such large importations this year of white potatoes from Ireland, England, France and Germany, that a rare opportunity is afforded to try some of the best foreign sorts of this popular bulb, and see if they are any better or more

prolific than our American sorts. It might be that a new variety would be found surpassing in some important characteristics the best of our sorts. The foreign potatoes can be bought as cheap as any of our best varieties, such as Early Rose, Peerless, Burbank, &c. Immigration may have as good an effect on the Irish potato as it generally has upon the Irish man. Who knows? Who will be the first to test the point by actual experiment, planting the *foreign* alongside the native and giving to each the same cultivation. Some of these strangers may be better here than in their native land. At least we will have a change of seed and a chance of being benefitted by the change or made better satisfied with our own seed.

The following slips gathered from our exchanges are well worth being read and tested by experiment.

Peach Grub Preventive.—Simply scattering a small quantity of salt, a spoonful to half a pint, according to age and size, around each tree in May and September, first, however, cleaning out all the grubs, is said to be a sure preventative of these pests.

A pint of soot in a pailful of water will make a liquid manure of the greatest value for flowers and plants of all kinds.

Length of Vitality of Seeds.—Although garden seeds, originally good and carefully preserved, will often germinate and grow at a much greater age than that given in the following table, their vitality is likely to be more or less impaired, as proved by practical experiment, which has fixed upon the figures cited as covering the limits of safety:

	Years.		Years.
Beans	2	Parsley	3
Beet	5	Parsnip	1
Cabbage	4	Peas (round)	2
Carrot	2	Peas (wrinkled)	1
Cauliflower	3	Pepper	2
Celery	3	Pumpkin	4
Corn	2	Radish	4
Egg plant	2	Squash	4
Cucumber	5	Spinach	2
Lettuce	3	Tomato	5
Melon	5	Turnip	5
Onion	2	Salsify	2

Mr. S. R. Hart, in the *Husbandman*, recommends gas tar as a remedy for the Colorado beetle on potato vines, and says it is more effective than Paris green. He mixes it in the proportion of two quarts of the tar to a pailful of water, and sprinkles the solution over the vines with a watering pot. A few applications, it is stated, completely destroys these terrible pests and keeps the vines free from their ravages. The same preparation may also be used on currant and other like fruit bearing bushes with good results.

The onion requires a rich, well drained, sandy loam, and the seed should be put into the ground not later than April 1. It should be trodden in or rolled at planting quite hard. Manure the soil heavily, keep perfectly free from weeds, and no crop will yield or pay better than onions.

The Accumulation of Nitrogen in Plants in the Absence of Mineral Food.

J. B. LAWES, LL. D., F. R. S.

In answer to an appeal from one of your correspondents, I pointed out a short time ago, that the crop grown on the experimental plot of our continuous wheat field, which receives every year an abundance of mineral food, but no nitrogen, contained a much higher percentage of mineral matter than the wheat grown in the adjoining experiment, which is supplied with nitrogen as well as minerals.

I propose now to give an instance of plants, which, in the absence of mineral food, have stored up an unusual quantity of nitrogen

In our rotation experiment at Rothamsted, Swedish turnips, which form the root crop are grown every fourth year on three separate plots, all of which are treated differently: (1) receives a large amount of manure, consisting of rape cake, salts of ammonia and minerals; (2) receives superphosphate of lime; (3) receives no manure whatever. The whole of the crops grown during the rotation are carried away from the land and the figures I am about to give refer to the ninth crop of roots, being the thirty-third year of the experiment. The following table will give the general character of the results. I may here mention that there are four separate experiments under each class of manures.

	Tons of roots, 2000 lbs. per A.	Nitrogen per cent. on dry roots.
Highly Manured	25	1½
Superphosphate	12½	0.9
Unmanured	1½	3

With a manure containing an abundance of every sort of food, and a favorable season for growth, we obtain a large amount of produce, and at the same time, a root which contains what might be taken as a proper amount of nitrogen, 1½ per cent.

The crop grown by superphosphate of lime is about half that grown by the high manuring, and it will be observed that there the roots contained less than one per cent. of nitrogen; as in the case of the mineral manured wheat, the roots had grown to the full extent of the nitrogen obtainable, they had in fact economised this substance to the full extent of their power.

Turning now to the unmanured roots,

we have a crop of only 1½ tons per acre, but with an exceedingly high percentage of nitrogen. The turnips on this plot although raised from seed which under the most favorable circumstances of growth, might have produced bulbs weighing perhaps 20 lbs. each, had lost the power to produce a bulb at all; they were, in fact, little more than weeds, weighing a few grains each. It must, I think, be quite evident to any one, that this large accumulation of nitrogen was due to the absence of phosphates.

In one of the four unmanured plots, only 5 lbs. of nitrogen were stored up by the roots grown upon one acre of land; where the superphosphate was used, from 25 to 30 lbs. of nitrogen were stored up in the crop; while in the roots receiving nitrogen, about 90 lbs. per acre were taken up by the crop!

We have in these experiments an illustration of the manner in which nitrogen may accumulate in a plant if it is unable to obtain a supply of an important mineral constituent; and further, that if the plant supplied with minerals only, is grown in a soil which has received no nitrogen as manure for more than thirty years, it grows to the extent of what nitrogen it can obtain, but the percentage of nitrogen in the crop is far less than it would contain under ordinary conditions of agriculture.

Fertilizers and Crops.

At a meeting of the Deer Creek Farmer's Club, Harford county, Md., Mr. Castner spoke as follows:

Mr. Castner said that if they wanted to improve their farms rapidly they must adopt his plan of plowing down clover sod every two years. At that time it is in its prime, and furnishes more vegetable matter to the soil than when older. What is needed in our soils is vegetable matter. He thought the time had come when farming cannot be successful without the use of chemical fertilizers. With them you can improve land quicker, cheaper, and raise better crops than with anything except clover. The chief elements of fertility are phosphoric acid, potash, soda, magnesia, and a little ammonia. Nature will supply all the ammonia needed, but the rest must be obtained from some chemical fertilizer. In bone you only supply one kind of plant

food, phosphate of lime, which is slowly convertible into phosphoric acid by the action of the elements. With chemical fertilizers you can raise more and better wheat at a smaller outlay than with barnyard manure—more and better wheat also than with Peruvian guano. Mr. Castner's rotation is to plow sod for corn, follow the corn with oats, and the following spring sow clover. He mows or pastures the clover the first year, pastures it the next, and the following year plows it down for corn again. He sows some timothy with his clover, but would not if the clover were sure to take root without it, as he regards clover better to use but not to sell than timothy. He applies his chemical fertilizers with a drill for wheat, and also with a wheat drill for corn, using 400 pounds to the acre for corn and 300 for wheat. For two years he has been using South Carolina rock and potash, and the result has been so satisfactory that last fall he put in his entire wheat crop with it. The cost is \$26 a ton. Bone will not improve land as well as a properly prepared phosphate, and there is just as much adulteration in bone as in any thing else. If you buy any phosphates, he said, you buy South Carolina rock, at phosphate prices, because it enters into the composition of all the better chemical fertilizers. He had used it alongside of high grade and reliable phosphates, and could see no difference. He used no fertilizer for oats, as under his system none is needed and he raises good crops.

Details in Silk Culture,

Mr. L. S. Crozier, of Corinth, Miss., in remarks on silk culture, figures up as follows:—The number of trees to the acre range from 160 to 340, the former number if the soil is to be cultivated between the trees, in other crops. Three hundred and forty trees, after four years, will furnish enough leaves to feed 80,000 worms, which will make 200 pounds of cocoons, worth from 50 cents to 75 cents per pound, or from one dollar to one dollar and a half dry. One hand can attend to 40,000 worms, which will produce 100 pounds of cocoons, worth from \$50 to \$75. Three hands with a little extra help the last week, can attend to 200,000 worms, which will produce 1,000 pounds of cocoons, worth from \$500 to \$750. Eggs are worth from \$5 to \$6 per

ounce, or \$1 per 1000,—40,000 worms being obtained from one ounce of eggs.—Fourteen pounds of leaves on an average will make one pound of silk, which, reeled, is worth from \$6 to \$9 per pound. One-half pound of silk can be reeled by an average hand per day, who can learn in three months' time, reeling an hour each day. The general success of silk growers from Kansas to North Carolina, from Texas to Florida, proves that the raising of the silk worm is to be an important addition to the other products of the farm.—*Exchange.* *

ENSILAGE.

The following communication is from a practical young gentleman, who was, at the time he gives his experience, the superintendent of a large and well conducted farm in St. Mary's county, Md. On this elegant estate—Jutland—belonging to Mr. Wood, U. S. Engineer Department, there were kept several hundred head of improved sheep, and a herd of cattle, most of which were high priced Short horns, together with hogs and poultry. This letter came too late for publication in our April number, but by keeping over has lost none of its interest.

Messrs. Editors of Maryland Farmer:

Having noticed that you announced in the March number of the *Maryland Farmer*, your intention of devoting some space to the discussion of the use and value of ensilage; I take the liberty of submitting to you in a short paper, my own experience and observation of this invaluable article of food, with the hope that it may add something to this important and interesting subject.

I had procured and read with much interest, Mr. John M. Bailey's work; and a favorable opportunity presenting itself, I determined to make the experiment and thus test the practicability of its use. Having a very fine field of agricultural peas, originally intended for soiling, also an old vault, lined with stone and covered in with a good roof, and which had been originally constructed for an ice house, I concluded my chances of success were very good. Accordingly, on the 19th of July I com-

menced cutting the peas with a mower, and then followed it immediately with a horse-rake. The gavels were taken up on carts and hauled to the *silo*, and there, without being passed through the cutting box, were forked into the pit, leveled off and trampled down as compactly as possible by the united efforts of several men. The second day, on account of rain, I was obliged to suspend operations; and upon entering the *silo* the day after, I found what had been stored away the first day had become very hot, in fact, to some extent it was *fired*. Discouraged by this state of things, I almost determined to abandon the experiment. Upon mature reflection, however, I concluded to give the matter a fair trial, and went on packing away the vines, although they were quite wet from the rain of the day previous. Finally, I closed the *silo* on the 24th, after having covered the vines with a layer of straw 6 inches deep, which, in turn, was covered with plank, weighted down with stones to a depth of 12 inches, leaving a space of three inches between the planks for the purpose of permitting the vapors to escape.

On the 15th of December, I opened the *silo* and entered it with quite a number of curious and skeptical neighbors, who confidently predicted and expected to see a mass of finely decomposed vegetable matter, *i. e.*, a manure pile.

I commenced operations by removing the stones from off two planks on the side, and taking them up, cut down into the mass with a hay knife. Upon getting through a layer, I found it all quite solid and still in the same warm condition in which it was when covered over with the straw and closed up. The vines to the depth of 6 inches were quite black and decomposed, which began to give my skeptical friends reason to believe that their wise predictions were about to be verified. However, after passing down lower, the knife suddenly revealed the truth, that my experiment had been crowned with complete success; for it laid bare to view, **ENSILAGE** in its most perfect state.

I fed it to the stock during the whole winter, with the most satisfactory results—the cattle and sheep eating it with great relish. In fact, the lambs that season were harder than usual, as the ewes were in better condition to nurse them. I do not think a *silo* need necessarily be constructed

below the surface of the ground, with the further expensive method of walling it up, or cementing it, as recommended by some. I think a safe and economical *silo* may be constructed of frame work, either annexed to, or built inside the cattle barn. It should be ceiled with groove and tongue boards, and in form, long, narrow and deep. The *ensilage*, if possible, should be trampled down thoroughly, covered with plank, and this in turn, held firmly down by blocks placed perpendicular to the planks to act as a press.

I do not think *ensilage* can be excelled by anything as a food for all farm animals, keeping them, as it does, in a healthy, thriving condition, at so little cost; and all interested in raising and fattening stock, will find it to their advantage to adopt its use, being much preferable to dessicated food.

A. L. TAVEAU, Jr.

We give the following extracts from the Reports of *Ensilage Congress*.

"Mr. A. Reed said:—Although I am not a professional farmer, I have *ensilaged* for the past two years. * * * *

I gave them (the cows) all they would eat in every instance. I used no meal of any kind. I have a sample of the butter here to indicate the color.

Being anxious to try an experiment I bought a cow of one of my neighbors, which had been fed on hay and grass. I put the cow on *ensilage* for nineteen days, giving her the same quantity she had been accustomed to get. It increased the milk at the rate of two pounds per day, and improved the color of the butter very materially. 'At the first the butter was perfectly white and now it is quite yellow. That is my experience with *ensilage*.

I feed about fifty pounds per day, on an average. I gave them all they would eat and I gave orders to remove all the fodder left in the manger, but to always put a little more in than they thought the cow would consume. As I have previously stated the result of my experiment will be found in the tabulated statement I have submitted.

"Q. Was your *Ensilage* sorghum?

"Mr. Reed: It was, but it had gone to seed before cutting, although it came out of the *silo* soft and sweet. I also allowed my cows two quarts of feed three times a day. I feed this amount all the year round.

"I also noticed a material difference in the amount of water consumed by cattle.

It is very much less. Frequently they will not drink at all. The food being moist had retained all the natural juices and they did not need as much water. I had the water placed where they could get it conveniently, and during this last cold snap I had it warmed slightly, but they did not take so much as when they were not fed on ensilage."

"Col. J. W. Wolcott, Proprietor Hotel Vendome, Boston: I do not know that I can give you much information on this matter at present, but I have carefully prepared some figures upon the subject. I have on this paper the cost of the production. Last year I raised thirty-four acres of ensilage crops. From these thirty-four acres I took four hundred and sixty tons or fourteen tons to the acre. I planted my corn in drills, three feet apart.

I read sometime ago from an article prepared by some of the apostles on ensilage that we could raise from forty to seventy tons of corn per acre. The highest product that I have been able to get out of fairly productive land is fifteen tons. I have had as high as thirty-one tons but that corn measured fourteen feet high. I doubt if any gentlemen present has gathered a heavier crop. My fifteen tons averages, including the cost of cultivating, gathering, cutting and putting in silo, \$2.55 per ton.

"Q. Does that include the manure?

Col. Wolcott.—It includes the cost of the manure at \$4 per cord; it includes the labor of the horses and men at ten cents per hour each. My method of cultivating is to plow and harrow the ground and spread the manure with a manure spreader, and then harrow it in. I sow my corn and harrow it about three times. That is about all I do to it. The drills are three feet apart and we plant from three to six kernels to the foot. Some of the stalks will run from twelve to fourteen feet high and an inch and a half in diameter. It was cut with a corn hook and thrown immediately on the wagon so that it goes in with the butts all one way. My silos are built on a side hill. The ends nearest the barn are out of the ground and the ensilage is taken out at the bottom. We drive to them and back up to the door and the cutter is inside; bringing our corn right to the door, when it is run through the cutter and falls into the silos. We tread it but once a day. We spread it as it goes in but at night after our twenty-five

men have had their supper I say: "Boys—let us have a little fun in silo" and they go in and tread it for an hour or so.

I have planted the mammoth corn at \$4 per bushel. It has not produced as much as some that I have bought at ninety cents. My silos are fifty feet long, fifteen feet wide and twenty-one feet deep. The upper portion is built of wood and the lower portion is built of concrete. I have yet to see the man who has raised enough to fill the space he has provided, but my confidence in this matter of ensilage is not in the least degree affected by that fact. I know that ensilage is the best food that I can give my eighty cows. I am satisfied that an acre of ground will keep a cow twenty-four months.

I am not contented with one crop for my ground. From an acre that I raised corn upon last year, I raised rye ensilage last Spring, and on that I kept my cows in the Summer. In regard to the rye, I kept mine from the first of June until October on rye. I am not so well pleased with rye fodder. It is not as nutritious as corn, but it answers a very good purpose particularly for a second crop. Still the rye was a very satisfactory crop. It should be taken off before the grain is formed, otherwise the stalks are likely to be woody. After the rye comes off the corn goes on. Last June when I had taken the rye off of the field the corn was in the same day. The ground was plowed, harrowed, manured and planted the same day, so that there was not much lost time. In addition to corn I have tried clover, sorghum and golden millet, which I liked very much, but in my estimation, when you take in consideration the quantity of the crop you can raise the corn is a little ahead. They all possess the same relative qualities in ensilage that they had before.

"By Mr Van Houten. I would like to ask the gentleman whether his mode of farming actually pays its way?

"Col Wolcott. In answer to that I have to say that I am making 420 pounds of butter per week, for which I get from 60 to 65 cents a pound at wholesale. I will let the gentleman judge himself whether that pays or not.

Terrible Loss of Life.

Millions of rats, mice, cats, bed-bugs, roaches, lose their lives by collision with 'Rough on Rats,' Sold by Druggists, 15c per box.

For the Maryland Farmer:

Farming a Safe Employment.

In these days, in which financial matters are unsettled, banks and money institutions suspending or failing, the every day defalcations that occur, individuals and corporations that have been looked upon as wealthy, becoming bankrupt, and a lack of confidence in business matters it may be profitable to consider for a little time that much abused employment—farming.

The impression has gone forth that agriculture is at least an unprofitable occupation. How is it with other occupations and the professions? In the professions it is seldom that one in a large number ever attains to a great celebrity, much less to wealth. The reason is obvious. The professions are already filled to overflowing with those of third and fourth rate capacity, and no capacity at all, and hence only those who are infinitely superior to all the rest ever attain eminence.

So, too, of the trades. How few are the mechanics that possess such a degree of skill as entitles them to great confidence or success? Very many there are at the present day, who without any preparatory apprenticeship, aspire to only the title of mechanic, and who, by great perseverance, make a bare living from their efforts. So, too, of merchants. How few of the large number of those engaged in mercantile life ever amass fortunes. And again, another very important matter to consider is the fact, that as a general rule more failures occur with merchants than with any other class of business men. It is computed that from seventy-five to eighty per cent. must of a necessity make a failure.

And how is it with manufacturers? If success attends them it is no thanks to themselves, nor can it be attributed to them, but it comes from the usury of the poorly paid and often abused operative, who is fortunate if sufficient is received to give them even a scanty subsistence.

The experience of the past has been sufficient to prove that even the most sagacious bankers are not occupying that secure position that public enjoyment has been wont to accord to them. They too, meet with failure and become penniless.

Now, how is it with the farmer? Very many are the instances of young men, yes, and those older too, who with nothing

but the implements that the Creator furnished them, as a capital with which to commence, have in a short time secured to themselves a farm, "free from all encumbrances. Numerous cases also exist, in which, continuing on, even large amounts of property have been accumulated by this means. But, leaving that aside, to be considered with the unprofitableness of farming, what is the general condition of the farm? Assuredly the most independent of any person who treads the earth. There is no panic that can seriously affect him. It is very seldom that his bank suspends. The earth brings forth the increase, and whatever else may betide, he can pursue his labors, gather in the harvest, and when the snows of winter fall, and the fierce blasts of the north winds howl about his well protected residence, he feels secure, not only from the fierceness of the blasts of winter, but also the dire calamity of want. The promise long since went forth, that, "seed-time and harvest should not fail," and it follows as surely as the night follows the day, that although every other business fail, the sustenance of the people must come from the farmer.

What an encouraging thought, that while all other kinds of business may fail, they cannot cause the failure of the efforts of the farmer in the production of his crops; but let the farmers of the country withhold their cultivation of the soil but a single year, and no matter how prosperous every other business, famine and pestilence would stalk throughout the land.

Farmers consider the security of your occupation and magnify it. Show to the world that you are the power by which its prosperity is affected.

Columbia, Ct. WILLIAM H. YEOMANS.

Sundries.

DAYTON, Howard Co., Md, Apr. 10-82.
Editors Md. Farmer.

Permit me to congratulate you on the decided improvement you have made in the artistic appearance of our old friend, the Maryland Farmer. The useful and ornamental are not always so happily associated.

ENSILAGE.

I notice your claim to being the first agricultural periodical which described the ensilaging process of M. Goffart, of France,

I think you can go back of 1875, in your claim, as I am under the impression, *original translations from papers published in France* were made especially for the *Maryland Farmer*, although I cannot recall the year, but your back numbers can easily prove or disprove the claim.

SULPHURIC ACID USELESS.

I see that Mr. Sharp in his address before the Maryland Academy of sciences, declares carbonic acid and sulphuric acid useless as fertilizers. I am aware he makes a strong case against the artificial application of nitrogenous articles, although he is fighting very weighty antagonists and arguments, but I have been under the impression that the sulphuric acid used in setting free the phosphoric acid in the phosphate of lime, acted not only chemically in this way, but also manurally, in that analysis demonstrate its presence in the cereals and grasses, and again the application of diluted sulphuric acid on one of the Pennsylvania experimental farms, whether under Mr. Carker's supervision or not, I do not remember—to grass produced excellent results. That there is enough sulphur in many of our soil, I admit, and that all such would be more quickly and durably improved by bone containing the *available* phosphoric acid is true, but whether it would be better to apply Navassa, S. C. Rock, and similar articles undissolved by the action of sulphuric acid, in all cases, is questionable. On Mr. Sharp's side of the argument, however, I will state that a successful farmer and breeder, (whose herds and results would compare favorably with any thing of the kind we have) in the Sandy spring neighborhood, expressed similar views in a recent conversation.

The question, what do our soils need is still open. Mr. Sharp's labors will greatly contribute to its solution, and until this is reached in the future, as he declares has been the case in the past, it is sad to contemplate the fact that millions of hard earned dollars that ought to go for the comforts of life, for farmer's families, must go for worthless ingredients of fertilizers and the persistent toil of man, and wife and child go unrewarded in consequence. Can not something more be done by the agricultural press and agricultural colleges to stop this unfortunate mode of proceedings?

D. LAWRENCE.

For the Maryland Farmer.

Unburnt Lime for Soil.

Recently I have been inquired of as to the benefits of ground, *unburnt lime* for soils and crops, and not well understanding the question, it is here submitted to you for discussion and decision. The farmer above alluded to says he has been told that lime ground fine, *without burning*, is better for crops than lime which has been burned, and he asks where he can purchase the article.

My own opinion is that the results must be slower, with a longer time before realized, as the unburnt lime will require longer time in the soil to be dissolved, so that the plants can appropriate and assimilate it, than in case of burnt lime. Can we not learn something reliable on the subject from your journal?

Respectfully, D. S. C.

[There seems to be a diversity of opinion between some agricultural chemists and practical farmers as to the relative value of burnt lime and unburnt ground lime. We have seen it asserted by one professing to be a chemist that unburnt is worth nothing, while a number of practical farmers who have tried it, say that it is far superior to the burnt lime. It is ground in Hagerstown, Md., we hear, and is used in Washington county, Md., where lime-stone boulders are as plentiful in the fields as blackberry bushes. Will not some of our friends who have used this fine ground, unburnt lime give us their experience? Carbonate of lime is also used in Pennsylvania quite extensively, and many enquiries are made of us, where and by whom it is for sale, by persons who desire to try lime in its raw, pulverized state, as a carbonate, instead of trying the caustic or burnt lime stone. Persons who manufacture this carbonate of lime would do well to advertise it in the Maryland Farmer.—EDS. MD. FAR:

Professor C. A. BRYCE, M. D., L. L. D., Editor Medical Clinic, Richmond, Va., says: "Liebig Co.'s Coca Beef Tonic is a wonderful reconstructive agent, building up the general system and supplying lost nervous energy. In all wasting diseases and broken down constitutions it is the agent."

HORTICULTURAL.

POTATOES.

How strange it seems that while we furnish meats, butter and cheese, fruits and breadstuffs all in immense quantities yearly to Europe, that this year Europe is sending us large quantities of potatoes at an average cost to our consumers of this vegetable of 90 cents to \$1.00 per bushel—more than it is intrinsically worth as a food by one-half. American varieties of note are worth from \$1 to \$1.50 per bushel, about double that a bushel of shell corn brings in the market, yet, a bushel of corn has more alimentary nutriment in it than two or three bushels of potatoes. As a fat producing article corn is worth five or more times as much per pound.

What has brought about this strange state of affairs? It is to be attributed, in some measure, last year, to the peculiar season, in the North, to too much rain, and in the more extensive parts of the United States to drought; to less area planted, because of the threatened ravages of the "bug," and the inertness of farmers who are too neglectful to use in time and plentifully, the sovereign remedies against the "bug"—Paris Green and London Purple. These are some of the special causes why potatoes are scarce and so high in price as to induce these startling importations.

We look to other and more important reasons that have operated in the last half century to keep this popular edible from being produced in abundance, and like other crops commensurate with the wants of a rapidly increasing population.

1st The apparent desire of growers to obtain some new variety of superior merit for quality in cooking purposes, irrespective of quantity of product.

2d. The false idea that it is more profitable to grow a choice eating potato at \$1.25 per bushel, yielding 100 bushels per acre, than one at 50 cents per bushel, yielding

500 bushels per acre. We remember the the "long Reds" and the improved "Blue Noses," introduced from Nova Scotia, fifty years ago or more. These potatoes yielded from four to six and seven hundred bushels per acre. The Blue Noses were good at any time—the Long Reds were not a nice table potato until they had been in the cellar or pit 6 or 8 months, and then were equal to any we have eaten since. While we had such enormously yielding sorts, they were as low as 12 or 15 cents a bushel and paid at that. There were no bugs or other enemies to destroy them. Then followed science, and new varieties were formed by hybridizing, &c., like the Maine Mercers and the Carter's, of better quality, small size and less productive. And after these followed an innumerable succession, until now, each year we have a lot of new varieties, wonderful in all the attributes required by the epicurean but sadly defective in the great desideratum looked for by the grower for profit—*productiveness*. But few claim to produce more than 200 bushels per acre.

3d. While we may have gained something in quality we have lost in quantity, until we have gotten down to a general average of good merchantable potatoes of 75 or 80 bushels and even less. Does this pay the grower at 80 cts, the usual price, as well as 40 cents for 500 bushels per acre?

4th. The growers have lost sight of the fact that the most prolific potato is the best for his purpose if he grows for market, remembering always that the heaviest pay the best, as generally now potatoes are like most articles sold by weight. Therefore, it is now-a-days, the true policy to plant for market, that sort which will give the most pounds per acre, of some saleable variety.

5th. Every variety has its time for maturing its perfection of ripening, and putting on the market a late maturing variety in the early season, places it at great dis-

advantage and ruins its character, hence, it becomes condemned and its culture is abandoned.

6th. So far as our experience goes, no foreign grown potato ever does as well the first year as our own sorts. If the growth of the first year was planted the second year perhaps the product would be better. We found it so in the case of Bermuda potatoes, which we grew from new potatoes of the same year's growth in Bermuda. Also such was the result of our experiment with the French Rohan potato, both of these experiments were made by us nearly 40 years ago. The Bermuda we bought in Baltimore as new potatoes, and on 4th of July planted some on our farm and received in Oct. of same year a premium for the finest and handsomest potatoes exhibited at the Prince George's Agricultural Fair. They proved the next year better and very early.

Our conclusions are that farmers can make money by growing potatoes at 50 cents per bushel, irrespective of all drawbacks and contingencies, such as bugs and droughts, &c., if they will plant on good turf, plowed the autumn previous, well manured and worked two or three times. Plant early and keep the weeds down, and kill the enemy with Royal Purple. Potato growing tends to enrich the farm, because the land for this crop must be enriched, while the potato does not use half the manure, obtaining most of its support from the atmosphere and leaving on the soil its heavy crop of vines that return to the land fully as much manurial element as the crop required for its growth.

The Castor Oil Bean.

Almost any soil will produce Indian corn will answer for the castor bean, but a sandy loam is preferable. The soil should be deep. This crop does not thrive well in heavy, wet soils. The ground should be well plowed, and harrowed three or four times. The seeds should be planted five or six feet apart each way. Between the sixth and seventh rows the distance should

be eight feet, to admit a light cart or slide, in harvesting the crop. Hot water, a little below the boiling temperature, should be poured over the beans 24 hours before planting, and they should remain soaking in this water 24 hours. They germinate much quicker by using the hot water. Eight or ten seed should be dropped in each hill and covered to the depth of about two inches. The beans should be planted as soon as all danger of frost is past, or about the time cotton is planted. Cultivate shallow, keep the weeds down and the surface well pulverized. One stock in a hill is sufficient, but do not thin out until the cut-worm season is passed. When they begin to turn brown it is time to harvest castor oil beans. They should be spread out in the hot sun, on hard, clean surface, allowing 12 or 15 feet for the beans to fly when the pods pop. A temporary plank fence around the drying yard is best.—*From a N. Y. Circular.*

For the Maryland Farmer.

Culture of Strawberries.

The strawberry is a delicious small fruit and fills an important place in the family economy, and yet they are not generally cultivated for the reason that there is a prevailing idea that so much time is required and so many difficulties attend the cultivation, that probably a large proportion of the owners or occupiers of farms are discouraged from making the attempt. To some extent this may be true, and still it is not in reality so. Very much depends upon the variety of berry. There are those that require twice or three times the amount of attention that others do in order to secure the best results. Where a berry is of that peculiar character that it requires a large amount of attention, the average farmer who must attend to all the pressing demands of his farm, hardly feels like spending the time or so much time as in required to produce the luxury.

But when he finds a berry that is of that character of growth that it can quite largely care for itself the magnitude of the undertaking of cultivation is very much diminished.

This is largely found in the Crescent Seedling. Unquestionably there are many berries that are superior in quality to the Crescent, and yet it is sufficiently good to warrant its cultivation by farmers or those

who have not an abundance of time to devote to it, for the reason of its hardness and general success in its "struggle for existence." The characteristics of this berry are its hardness and powerful growth, rendering it able to struggle successfully even against weeds. It is not necessary that it should be cultivated in the hill system. When starting a patch of these strawberries all that is necessary is to set the plants in rows with the hills at such distance apart as is desired, and also the rows. The soil need be only of such fertility as could make good corn, and kept clear through the season by cultivation. The plants may be set in the spring or fall, if set in the fall there is a reasonable prospect of a fair crop the next season. Where set in the spring they get a good growth and send out runners in the fall, much enlarging the bearing capacity of the plants, and in this consists a strong point with this berry. If they are set in a long row on one side of a piece of cultivated ground they will send out their runners which does not appear to affect their productiveness, and in a year's time will have completely covered the ground for quite a distance from the rows. These with no trouble will continue to bear for about three years, and each year will send out runners further and further upon the unoccupied ground, and when the first are ready to fail, they may be plowed up and there will still remain a strip in good bearing condition, and so the system continues from year to year, and yet no very great amount of care be necessary. Our first acquaintance with the berry was about the time of its general dissemination, when we set twelve plants in a row about three feet apart in the spring.

The plants did not seem to get a very encouraging start and two of them died, but in the fall when there was more rain, the plants took a start and sent out runners. They were kept as clean as they conveniently could during that season and receive a dressing of fertilizer.

In the spring the plants put forth their energies, and the result was, we picked almost one bushel and a half of nice berries.

There are those that with greater care will produce much larger berries, but for a variety that is of average quality and production with little attention the Crescent fills the bill. WILLIAM H. YEOMANS. Columbia, Conn.

Jerusalem Artichokes.

By many persons they are highly prized for culinary purposes, but few understand the value of artichokes for feeding stock. They can be raised much cheaper and easier than almost any other kind of roots, bulk for bulk, while they are richer in fat producing elements. Cattle and other stock eat them greedily while raw, but they are especially valuable for fattening purposes when either steamed or boiled. The tubers are large, often weighing from one to three pounds each, clean and white, much resembling potatoes.

The cultivation is of the simplest character. Select light, rich soil if possible; prepare it as you would for a good crop of potatoes, and plant as early in the spring as the ground can be worked. Medium-sized tubers should be selected for seed. Plant in hills two feet apart in the row, and rows three feet apart, dropping from one to three tubers in each hill, according to size, and cover, at least, four inches deep with mellow soil. In about a week after planting, or as soon as the weeds have germinated, harrow the entire field, taking care that the teeth are not set deep enough to disturb the seed. This will destroy the first crop of weeds. After the plants are up the cultivator might be used between the rows with advantage. This is all the care they will need until they are ready to harvest, which will be soon after the first fall frost. Many turn in the hogs to do this, which they will do with facility and fatten rapidly. But as they are valuable for feeding other stock besides hogs, the following will be found a good plan for harvesting them, for, of course, they cannot be dug like potatoes, as the tubers will be found to spread thickly all through the ground. Mow off the tops when they begin to wither, and haul them off the ground. Plow the artichokes out, picking up all that comes to the surface, then harrow and repeat the picking operation. If you want to get them out of the ground quite clean, you must plow, harrow and pick them again, and turn in the hogs to get what is left. I think you will be surprised at the yield of a small piece. One thousand bushels per acre is the average yield in this locality.—*W. J. H., in the Canadian Farmer.*

For the Maryland Farmer.

CHUFAS.

In answer to interrogatories in regard to the nature, culture and value as an agricultural product, etc. of this new auxiliary to the farmer, the following suggestions are submitted for publication in your wide awake journal. It is a species of grass nut shaped like a mulberry and near its size, remarkably prolific, making one or two hundred to one, an excellent food for hogs, requiring no expense of harvesting, the animals doing that job for themselves, and in upturning the sod, affording a fine opportunity for all the fowls of the farmer to likewise grow fat. In tobacco regions, where large flocks of turkeys are kept to devour the worms, this crop would come just in time to fatten the fowls for market when they were no longer needed as executioners. Apprehensions are naturally entertained, that the chufa being a grass nut, might establish itself permanently in the soil to the perpetual worry of the farmer afterwards. So far as our experience goes it is not liable to this objection, and for this reason, while the ordinary grass nut grows deep in the soil, often 12 or fifteen inches below the surface, and beyond the destructive influence of frost, the chufa will only grow near the surface, and so much so that when a plant is pulled up nearly every nut comes with it. Ten hogs turned on a acre the middle of September, will require no attention for the next 60 or 90 days, while the sod from the plants and the manure from the animal, distributed through the soil, decidedly promotes its fertility. The only objection we have found to the crop is its thorough adaptation to an increased crop of mo'es, which are present to destroy the seed of a succeeding crop if it happens to come out in their bill of fare.

Now, as to cultivation: prepare the land well; lay off the rows $3\frac{1}{2}$ feet; use 200 lbs. good phosphate to the acre in furrows; plant the nuts two in a place, 18 inches distance, cover $1\frac{1}{2}$ to 2 inches deep. It is necessary to soak the seed 5 or 6 days until they get plump, otherwise they will remain in the soil so long that the grass will cover the surface before they get through. The time to plant in south side Va. is about the first week in May. When the plant is up sufficiently, run the bar of the plow next

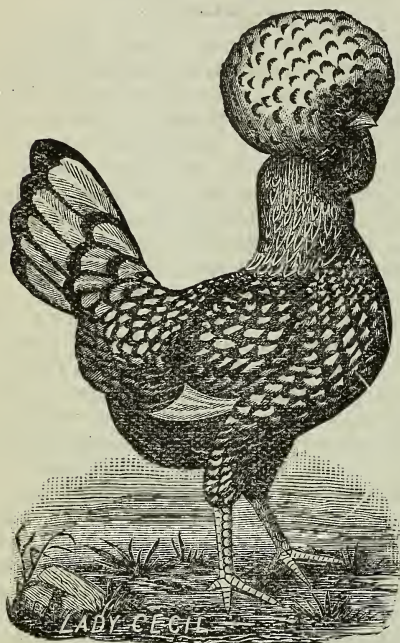
to throw and scrape off the grass between with hoes, throw the dirt back in due time and one more working will be sufficient.
Southampton Co., Va. AGRICOLA.

LARGE YIELDS OF CORN.—Professor Beal, of the Agricultural College, Lansing, Mich., says that "the average yield of corn in many of the best States for this cereal does not exceed 40 bushels per acre. A hundred bushels, to the acre was once thought incredible, but now it is nothing extraordinary. During the past summer on Long Island, on the farm belonging to the editor of the *Rural New Yorker*, a yield of four acres averaged 113.69 bushels of shelled corn per acre. The largest yield of any one acre was 159.37 bushels of shelled corn. The variety is known as the Chester County Mammoth. Another field of about seven-eighths of an acre of Blount corn yielded at the rate of 134.44 bushels of shelled corn per acre. E. F. Bowditch, Farmingham, Mass., the past season had a field of $17\frac{1}{2}$ acres which yielded on the average 109 $\frac{1}{2}$ bushels of shelled corn of prime quality per acre. The cost per bushel of ears was 16 cents. The largest yield on one acre to my knowledge is that of Dr. Parker, of South Carolina. The yield was 200 bushels and 2 quarts of shelled corn per acre. The land was underdrained, highly manured, highly cultivated, closely planted, and irrigated.

PRUNING THE PEACH.—Trees that are grown on rich virgin soil, should be summer pruned, or say just at blossoming time, while those on poorish soil, should be trimmed and pruned in latter part of the season. Never cultivate the trees in the latter part of the season. A good rule is to cut back half to two thirds of the new growth (owing to growth the tree has made) each fall or winter, and where limbs are growing too close and thick, thin out. If your trees are making limbs that are tall and spindling, you must either cut half or two-thirds of the limbs back or they will soon be broken down or split down, thus ruining the tree. We have seen old trees that yielded a little fruit on the ends of limbs, renewed into new life by having limbs cut off near the body and the bodies well covered with a coat of whitewash and soapsuds.—*Fruit Recorder*.

POULTRY HOUSE.

Conducted by T. B. Dorsey,
St. Denis, Baltimore Co., Md



The Bearded Silver Poland.

So far I have described the varieties more adapted for fanciers with a full purse or farmers with unlimited range for their birds. I now come to the poor man's bird, for such, notwithstanding adverse opinions, I consider the Poland fowl. In the first place they do not require anything extensive in the way of a yard, either in size or arrangement. They are virtually as non-flying a bird as the Asiatics, since their huge crests prevent them from seeing how to get over a six foot fence. They will outlay any fowl in confinement that I have ever bred, Leghorns and all, and really make nearly as fair a showing for an average, in their narrow quarters, as any breeds but those in the Spanish and Hamburg classes do with a hundred acre range.

They are the gentlest of pets, will eat out of your hand, and with a little handling will allow themselves to be caressed as easily as a dog. I have now an old hen who will let me smooth all her feathers, little by little, and has a purr of satisfaction under

the handling resembling that of a favorite cat. Their beauty of plumage is unsurpassed even by the Hamburgs, and their crests give an oddity to their appearance which always seems attractive. They are the best of all birds for the mechanic or small tradesman in suburb or village, as they eat very little feed, are docile and contented in any small yard, and the steadiest of layers. Their oddity alone commands at all times a ready sale, and finely marked specimens are in demand from fanciers, at what would seem fortunes to persons who look upon fowls as simply a saving of butcher's meat. I have expressly mentioned the bearded variety because the plain is not as handsome, is wilder and less easily managed, and furthermore is being supplanted so rapidly by the bearded, as to bring far lower figures. In England you can no longer buy the plain at all. The plumage of the silver is white with a broad spangle of black at the end of each feather, the crest white laced with black, the beard black laced with white, and the tail, in hens, pure white, laced at the ends with black, in the cocks, often gray, laced with black.

In reply to Mrs. Broome's queries I would say.

1st. To feed ten hens and a cock, the same trouble as to quantity would come in as if you were feeding the same number of children. Each breed differs largely in their appetites, and individuals still more. There is no fixed criterion. The only way is to give them as much as they will eat up clean, and no more, and then estimate the daily needs.

2d. The carbolic egg is made of plaster of Paris, with a hole in one end, in which are placed crystals of carbolic acid, saturated with the fluid and then corked up. The heat of the hen's body causes the crystals to give out fumes which are sure death to vermin. I think they can be got from D. M. Livingston, Needham, Mass., or O. H. Leach & Co., Boston, Mass.

Little Chickens and Insects.

The practice of excluding chickens from the gardens, especially in mid-summer, is bad, both for the chickens and for the vegetables. The young chickens will not thrive in confinement as in freedom, and the growing plants are in a measure protected from insects by the chickens. We have never

succeeded better with young broods than by putting them with the mother in the vegetable garden. The mother is kept confined in a coop and the chickens have free access to her through the slats. She follows her instincts in scratching over the ground under the coop for worms and grubs, and after a few days the coop is pushed along to new soil. The chickens are regularly fed with scalded meal or screenings; they supply themselves with animal food from the garden. The chickens are too small to do any harm to plants that are well started, and yet pick up an immense number of insects. The more highly a garden is manured, the more rapidly do the insects multiply, and the greater is the need of birds and fowls to keep them in check. The chickens can go beneath cucumbers, squashes, beans, tomatoes, etc., and pick the eggs and worms from the underside of the leaves, where they are generally found. They eagerly chase every moth and bug that flies; if one alights within striking distance it is sure to be devoured. When the chickens are large enough to do injury to the plants they are easily removed to other quarters.—*Gadsden Times*.

Try Ducks.

If you have any taste for them and your grounds are roomy enough, whether you have much water or not. Rouens, Pekins and Aylesburys will get along very well with a tub or a sunken place in the yard with a little water filled in from time to time. Ducklings will do much better if kept in a dry yard with only water enough to drink until they are well fledged. From six to eight weeks after hatching these birds need care to keep them out of dew and heavy rains. They will be less likely to die, and will grow faster, which is the main point in rearing.

Geese and ducks ought to be got out by the last of March to be brought to the heaviest weights in the succeeding season of the holidays. To do this, (a month being required for the incubation of their eggs,) no time should be lost in setting such as may have been laid in the latter part of February. A few duck's eggs, say seven to nine in a clutch, may be set to advantage at this season of the year, under *large hens*. Neither geese nor ducks commence to lay

very liberally until after March sets in. But where large flocks are kept, a few straggling eggs are dropped before that time. These may be utilized as we have suggested under hens, and with fair care they will do very well after hatching.

After the ducks are well started let them roam in the pasture, if practicable, allowing them to get their own feed and what water they can find. It may answer to let late hatched duckling run to the brook or pond with the older ones, but the danger of loss is greater than in yarding them.

The best food for ducklings and chicks, too, far that matter, is coarse corn meal, with an equal measure of wheat bran, well scalded and mixed. If impossible to give free range, furnish cheap animal food like sheep heartlets or waste market pieces, boiled and chopped fine with cracked corn for a change.

The market is never overstocked with good poultry, and the extra cost of raising a few ducks is much less than the returns. Keep pure breeds, and if you have a few eggs to spare they will bring a good price. Ducks will not mix as readily as hens, but do not let different varieties run together.—*Poultry World*.

ERRATUM AND APOLOGY.—The advertisement of Messrs. J. J. Turner & Co., in our last issue, page 24, was headed "To Cotton Growers," when it should have been "To *Corn* Growers." This verbal error could not however have deceived many, for the fertilizer has been known for a quarter of a century, and has increased in popularity with its years as adapted to *all* crops. Messrs. Turner are among the very oldest manufacturers of reliable fertilizers in this country, and their works have established an enviable reputation among our grain, tobacco and cotton growers of the Middle and Southern States.

MAN'S INGRATITUDE.—This is an ungrateful world to say the least. A man will act like a lunatic when he has the Itching Piles, and declare that he knows he can't live another day, yet he applies Swaneyne's Ointment, the intense itching is allayed at once, he gets cured, and goes down to the lodge without one whit of gratitude. When asked why he looks so cheerful, he dodges the question by an indifferent answer. Its just like a man though, is'nt it?

MARYLAND FARMER

A STANDARD MAGAZINE,

DEVOTED TO

Agriculture, Live Stock and Rural Economy.

EZRA WHITMAN, Editor,

COL. W. W. W. BOWIE Associate Editor,

141 WEST PRATT STREET,
BALTIMORE, MD.

BALTIMORE, MAY 1st, 1882.

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TO ADVERTISERS!

THE MARYLAND FARMER is now read by more Farmers, Planters, Merchants, Mechanics and others interested in Agriculture, than any other magazine which circulates in the Middle or Southern States, and therefore is the best medium for advertisers who desire to extend their sales in this territory

We call attention to our Reduction in Price of Subscription,

Now is the Time to Subscribe

--FOR THE--

Maryland Farmer,

Terms \$1 Per Year in Advance.

The subscription price is very low, and we think any farmer merchant or mechanic would find it worth to him ten times its cost. As an extra inducement, we will send (free, as a premium,) to each subscriber, one of the following valuable books as he may select, viz:—

Kendall's Horse Book,

Fisher's Grain Tables,

Scribners Lumber and Log Book,

or Report of Ensilage Congress,

Either book is worth to the farmer more than the price of our Journal, and by enclosing \$1.00 the Maryland Farmer will be promptly sent you for one year and either of the books you may select, free of postage.

EZRA WHITMAN.

COL. D. S. CURTIS, of Washington, D. C., is authorized to act as Correspondent and Agent to receive subscriptions and advertisements for the MARYLAND FARMER, in the District of Columbia Maryland and Virginia.

Our friends can do us a good turn by mentioning the MARYLAND FARMER to their neighbors, and suggesting to them to subscribe for it.

Fish Culture.

There are few adjuncts to profitable farming more lucrative and pleasurable than fish culture. It is certainly becoming a part of farming employments with our people, and it is strange that it has not taken a stronger hold upon our young and go-ahead farmers. We give an extract from a well written and judicious review of the several reports of Commissioner Ferguson, that has lately appeared in the *Baltimore Sun*. We agree with the writer, that Maryland by means of the appointing power of the State, will lose a most admirably fitted officer in this important branch of her industries that have been so well sustained at such economical cost. Major Ferguson has crowned himself with enduring laurels and made a grand reputation for Maryland, and at the same time conferred upon her people innumerable and lifelong blessings. We hope his successor may prove equal to the growing expectations of our people, who, seeing and appreciating what has already been accomplished, naturally will look for still further progress in pisciculture, that under the liberal system now inaugurated, must result, if skillfully carried out, redound to the immense comfort and wealth of the whole people of the State in the increased supply of a cheap, wholesome brain and physical food for all classes both rich and poor.

"Among the important devices and inventions of Mr. Ferguson, which have tended so greatly to revolutionize the system of fish culture in America, we find illustrations in his reports of the following three most important: "The Ferguson Hatching Jar," designed for the perfection of the eggs of the salmon family, which has been in such successful operation in the Druid Hill hatching house; the "Cone," for the development of the partially buoyant eggs that require constant change of water and agitation, and the "Hatching Cylinder," the improved hatching apparatus, as described in the letters patent No. 199,527, specifications are given in full, in

the third volume of his report.

"For these devices which were exhibited at the recent fishery exhibition, at Berlin, Mr. Ferguson received the first prize of a gold medal.

The importance as well as the successful use of these devices, is evidenced by the great increase in the number of young fish produced, especially the shad. Whereas, only 2,724,000 young shad were hatched in 1876, our waters received the benefit of a deposit of 7,419,000 in 1877; 8,285,000 in 1878, which was again increased to 23,498,000, in 1880, and last year the number of fish developed in Mr. Ferguson's apparatus and deposited by him in the waters of the State, amounted to the enormous total of 48,190,000.

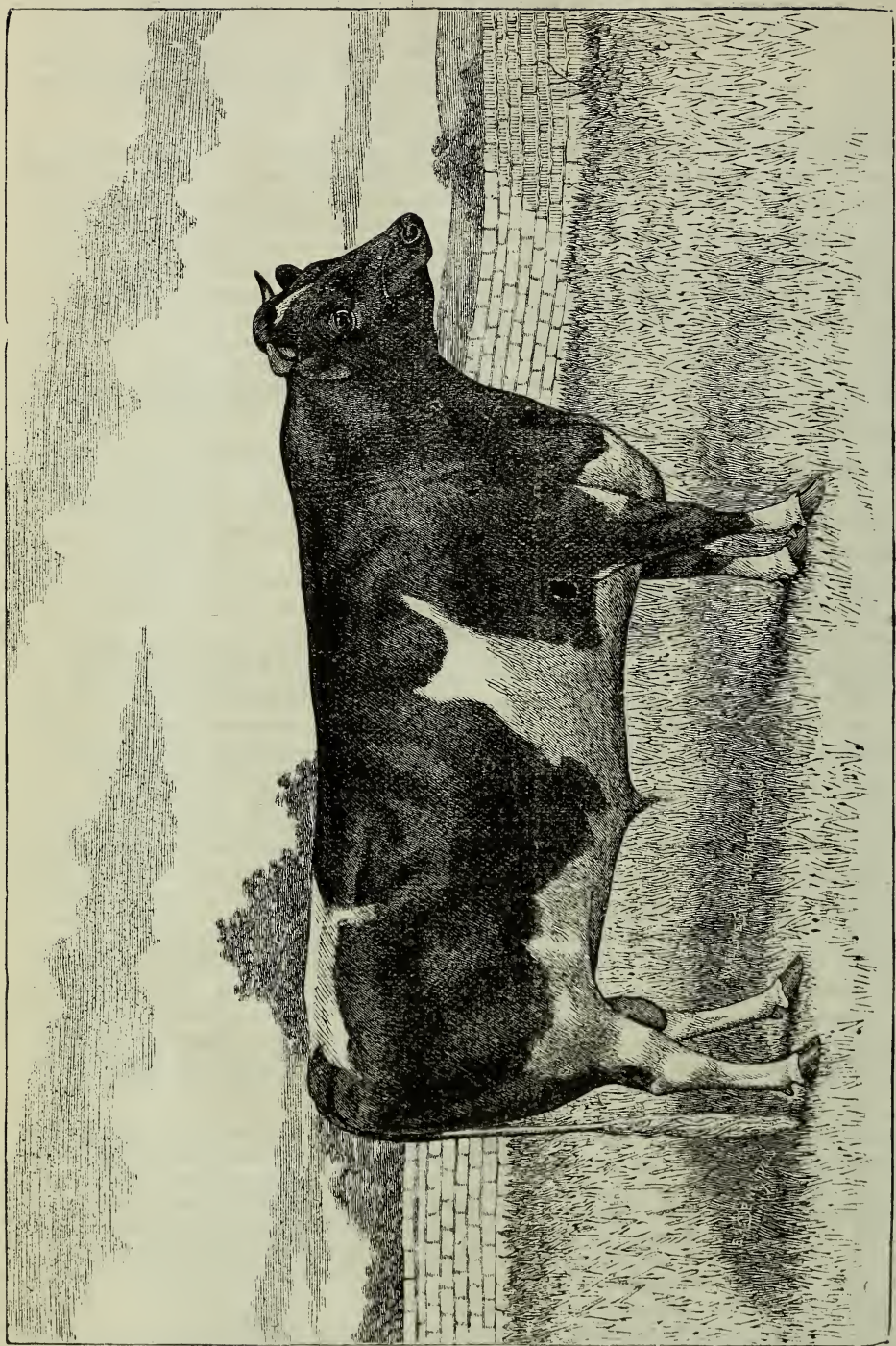
The successful introduction of the German carp, and the increased distribution of this valuable addition to our food fishes, is shown to have reached from 6,155, in 1879, to 20,274, in 1881. From every portion of the State reports come of the extraordinary success which has attended the introduction of this fish.

"Under Mr. Ferguson's administration, 405,000 brook trout have been issued to the citizens of Maryland, and as our State possesses many streams, in which this fish has been once found abundant, the addition of this number must most assuredly tend to arrest the decrease of these fish.

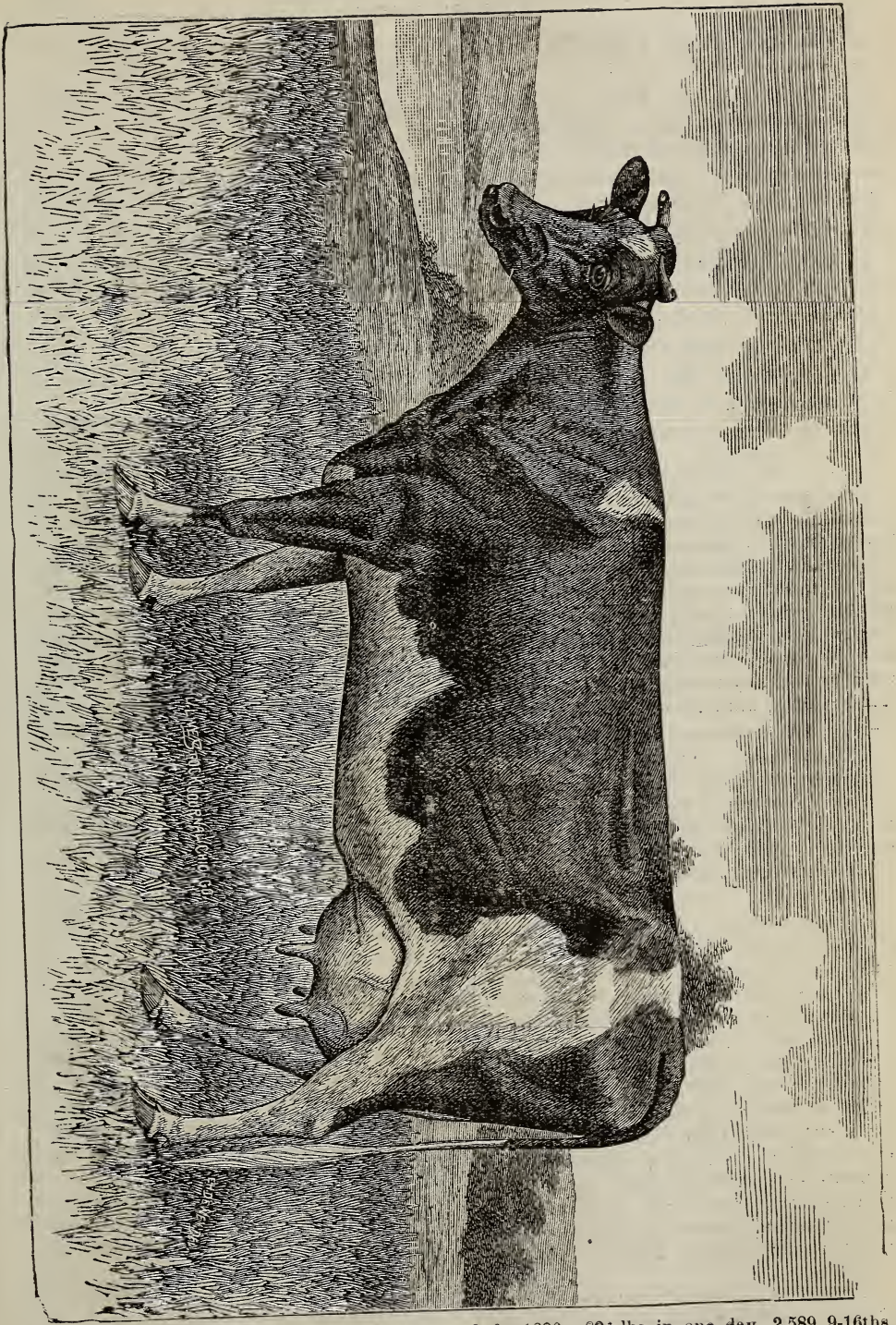
"As well as paying special attention to the important native food fishes, the Commissioner has made experiments looking toward the introduction of new varieties of fishes. Although some of these experiments may not result successfully, it was certainly worth while making the attempt, as the amounts expended in this direction have been small comparative to the benefits which would have inured should these new varieties be successfully added to the list of fishes which are now found in our markets.

"It will be a source of regret to the thinking people of Maryland, if the work so well begun, looking to the preservation and development of the important oyster industries of the State is not prosecuted in time to arrest the decrease of this valuable product, evidences of which come from all quarters.

ALWAYS REFRESHING — A delicious odor is imparted by Floreston Cologne, which is always refreshing, no matter how freely used.



Imported Holstein Bull, "Prince of Edam," winner of First Prize at Leyden,
competing with all Netherlands.



Holstein Cow, "AEGIS"—6 years old, Milk Record, for 1880. 82½ lbs. in one day, 2,589 9-16ths lbs. in one month, 10,904 5-16 lbs. in six months, 16,823½ lbs. in one year.

LIVE STOCK REGISTER.

Heretofore, we have given our readers engravings from pictures of animals, drawn from life, to illustrate several breeds of cattle, remarkable for various qualities and adapted for various uses, and we now give the two foregoing illustrations of the Holstein breed. We are indebted to Messrs. Smiths & Powell, of Lakeside Stock Farm, Syracuse, N. Y., for the cuts, and take the liberty to extract from their handsome catalogue some of the statements they make in regard to this breed of cattle, which is growing so rapidly in public favor.

HOLSTEIN CATTLE.

"They have now been tested and have proved a success in almost every State and Territory, from Maine to Texas, from New England to California. They seem adapted to a great variety of climate and soils, and hence flourish in almost every locality. We feel fully justified in stating that they more successfully combine all the necessary qualities and characteristics of a really desirable and popular breed than any other.

"As milk producers, they stand 'unrivalled and alone.'

"Yearly records of 12,000 to 15,000 lbs. of milk from the cows of this breed are not rare; occasionally reaching 18,000 pounds.

"In what other breeds do we find such records?

The fifth volume of the Holstein Herd Book, just issued, shows in this country, up to this date, 1,038 bulls, and 1,744 females, and yet from this small number we venture the assertion, that more authentic yearly records of over 12,000 pounds of milk can be shown than from all the other breeds combined. Deep milkers are the rule and not the exception; in fact, we have never seen a well bred Holstein cow that was not a good milker. Of course there is a vast difference, even in this breed. Some families and certain strains of the breed are vastly superior to others, but when selected and bred from milking families there are no failures.

"A matter of no small consideration to dairymen is the fact that they usually continue to give a large flow of milk for nearly

or the entire year, frequently milking for several seasons without going dry.

"In 1879, we kept but a few complete records, but those proved quite remarkable.

"'Netherland Queen' dropped her calf in April, when just about two years old, and made the following record: 58 lbs: 12 oz. in one day; 1,670 lbs. 9 oz. in one month, and for the year, the unprecedented yield of 13,574 lbs. 3 oz., and dropped her second calf two days less than a year from the date of the first. This yearly record is over 2,000 pounds more than any other two year old record, previously made, of which we have any knowledge. * * *

"The records of Aaggie and Ægis exceed those of any mature cows; while the record of Netherland Queen surpasses that of any two year old, and Lady of the Lake higher than that of any other heifer commencing at twenty-two months of age.

"As a *butter* breed the Holsteins are destined to take a high rank. In this respect our tests have been limited and were made under unfavorable circumstances, but they have been very satisfactory, as will be seen by the following.

"Maid of Purmer, as a two year old, made a pound of butter a day, after milking eleven months.

"In 1880, after the best of the season had passed, in four to five months after calving, Jannek made 2 lbs. 2½ oz. of butter in a day; and Aaggie 2 lbs. 8½ oz. in a day.

"In 1881, Jannek made 19 lbs. 15 oz. in seven days, and 28 lbs. 6 oz. in ten consecutive days.

"We find several of our two year old heifers made about 9 lbs. of butter in a week; a three year old made 9 lbs. 14 oz. in a week; a four year old made 12 lbs. 14 oz. in a week; and other mature cows made over 14 lbs. per week.

"Aaggie 2nd, owned by Messrs. Yeomans & Sons, from Aaggie (901) of our herd, made this season, as a two year old, 13 lbs. 6 oz. of butter in a week.

"Lady Walworth, eight years old, belonging to the same parties, made 19 lbs. of butter in one week, and 37 lbs. 6 oz. in two weeks.

"Ophelia, two years, 13 lbs. 5 oz. in one week.

"Altona, six years, owned by Messrs. Maxwell & Bros., made 17 lbs. 14 oz. in 7

days, and 35 lbs. 3 oz. in 14 days. * *

"These records have all been made in 1880 and 1881. Many more might have been given, but we deem these sufficient to show the Holsteins to be one of, if not the greatest butter breed known.

"At the last Onandaga County Fair, butter made from the milk of our herd, in competition with Jersey and other butters, judged by a committee of three, two of whom handle Jersey butter in business, was awarded the Society's First Premium, also Special Butter Prize. Holstein butter is noted for its fine flavor and excellent keeping qualities.

"For beef, the Holsteins will class with the Short-horns; in size they will compare favorably; and as they are very hardy, vigorous, and fatten readily when not in milk, they are destined to take a front rank among the noted beef breeds.

The following weights of a few of our cows will convey a better idea to the reader than mere comparison with other breeds.

These weights were taken in January, while cows were still in milk, having milked deeply through a long season;

Isis, 7 years, 1880 lbs. Porcelainje, 5 years, 1509 lbs.
Neilson, 6 yrs., 1565 lbs. P. of Beemster, 3 yrs. 1440 lbs.
Egis, 7 years, 1790 lbs. Sappho, 2 years, 1280 lbs.
Junia, 5 yrs., 1562 lbs. Prima Donna, 18 mos. 1234 lbs.

BULLS.—Uncle Tom, 4 years, 2120 lbs.; 5 years, 2290 lbs.; Prince of Edam, 3 years, 2110 lbs.; Beaconsfield, yearling, 1390 lbs.; Ebbo, at 2 years, 1540 lbs.; Sentinel, 23 months, 1425 lbs.; Neptune, 14 months, 1314 lbs.

Our calves for the first three to four months, usually gain about 100 pounds per month.

The docility and quiet disposition of the Holstein cattle as a breed, is a matter of no small importance to the breeder and the dairyman. The old and young—bulls as well as cows—are almost universally kind and gentle.

The symmetry, the glossy coats, the uniformly clear and distinct black and white color, all combine to render the Holsteins one of the most attractive and beautiful races of cattle known.

No other breed, when grouped in the yard or grazing in herds upon the pasture, will attract such universal admiration. All are black and white in color, and very uniform in shape, size and general appearance.

For the Maryland Farmer.

Influence of Sire and Dam.

There are so many intricacies connected with the science of breeding live-stock that it is impossible to thoroughly master the subject in all its varied details, and even when we feel assured we have brought certain lines together and all the desirable features we wish will be embodied in certain offspring, something may occur, either apparent or hidden, which will defeat us either entirely, or else so modify the results as to sadly disappoint us, and so alter our views as to make us doubt whether live-stock breeding really is a science, or merely a lucky or unlucky hit, as the case may be. That the sire and dam both have an influence on the offspring in a great or less degree according to circumstances, other than that which merely comes from the mere joining of certain lines of blood, no breeder ever doubts, tho' just to what extent or in what direction, under certain influences, cannot always be definitely determined, in advance at least. While we think that a vigorous, robust constitution on the part of the dam may counteract or at least modify any hereditary or constitutional weakness or predisposition to disease, we consider such mating only warrantable when the desired good can only be obtained by such coupling; but even then it should not be done if the animals are nearly related, as the tendency, in such cases, is to perpetuate and intensify the bad as well as the desirable qualities and characteristics, the former too frequently predominating.

Weakly dams, however, almost invariably untrustworthy animals to breed to, no matter how strong or good may be the qualities on the side of the sire, for, as a rule, the constitution comes from the dam, who nourishes the embryonic seed deposited by the sire, and if this nourishment is insufficient in quantity or quality, then there is not a vigorous, healthy development, consequently poor offspring, in point of strength, vitality and vigor. After the germ has once been deposited, the sire has finished his part, and nothing more is desired of him, it remaining for the dam to do her part towards nourishing the embryo, and inducing that measure of healthy development which will insure desirable offspring. Of course, man can, by furnishing plenty of good food and proper care, further this

object; but if the dam be delicate, has but little appetite, is small, weakly and not properly and generously developed, then no manner of care will atone for this lack of the most essential features of a desirable dam, no matter of what kind it may be.
E. Jr.

SHEEP.

The crying need of American agriculture to-day is a more general incorporation of the sheep into the farming economy. More prolific, subsisting on scantier herbage and requiring less supervision, it claims an additional advantage of "paying for its raising" in annual instalments of marketable fleece pending its growth to maturity. It is more readily transferred from one inclosure to another, and is easily retained by fences which would prove no barrier against the encroachment of other farm stock. Its light tread and love of repose warrant its access to fields and pastures where the tramping of cattle and the tearing of hogs would not be tolerated. It wastes less food in proportion to the quality consumed, and will hunt and utilize much that would otherwise be lost to the farmer. Yielding a return in both fleece and flesh, it furnishes its owner with the double advantage of catching a good market for his product, requiring less water and disposed to work for its food. It is without a peer when summer's drouth taxes the farmer's resources for enabling his live-stock to maintain an average of thrift and flesh. All that can be said in behalf of feeding live-stock on the farm, as distinguished from the soil-impoverishing policy of placing the raw grain and grass upon the market, will be found to apply with double emphasis to the farm that carries as a part of its outfit one or more sheep per acre. No, the animal returns more fertility to the soil in proportion to the amount exacted for its support, while none equals it in the evenness with which the droppings are distributed. Notwithstanding the evident advantages an increase in sheep culture brings, the agriculture of a country is generally and especially inuring to the benefit of such farmers as incorporate it into their system, the fact is apparent that sheep are not so numerous or so evenly distributed as they should be,—*Breeders' Gazette*.

BERKSHIRES sold and delivered by E. B. Emory, Poplar Grove Stock Farm, since first of January, 1882:—To E. R. Dennis, Ellicott City, Md., "Rosa May," dam Lea 5398, sire Lord Easton 3417; "Lady Centre 2d," dam Lady Centre 7000, sire Lord Easton 3417. To Jas. Law Hooff, Charlestown, W. Va., "Molly 7602," "Rosa Lea 2d," dam Rosa Lea 5398, sire Lord Easton 3417; "Lady Centre 3d," dam Lady Centre 7090, sire Lord Easton 3417; "Liverpool Lad," dam Sallie Liverpool 2d 7770, sire Lord Clermont Bowmans. To Hon. B. F. Gunter, Accomac, Va., "Lord Accomac," dam Rosa Lea 5398, sire Lord Easton 3417. To J. N. Mills, Westover, Md., "Lord Easton 2d," dam Rosa Lea 5398, sire Lord Easton 3417; "Lady Centre 4th," dam Lady Centre 7090, sire Lord Easton 3417. To Hon. J. B. Brown, Centreville, Md., "Lord of Wye," dam Lady Centre 7090, sire Lord Easton 3419; "Chesapeake 2d," dam Chesapeake 7024, sire Lord Easton 3417; "Daisy-dale 2d," dam Chesapeake 7024, sire Lord Easton 3417. To Geo. M. Smith, Esq., Centreville, Md., "Lord Corsica," dam Chesapeake 7024, sire Lord Easton 3417. To M. T. Goldsborough, Esq., Easton, Md., "Queen Anne 7608," "Mary 7600." To I. M. Parr, Baltimore, Md., "Lord Easton 3417." To J. Luther Bowers, Berryville, Va., "Lord Clermont XV 3915.

WILL no one of our many readers try the plan of growing tobacco on the new plan we have suggested? Say only one acre for experiment, *made very rich*, plants to stand 3 by 4 feet, well cultivated, not a leaf to be disfigured by worms; no suckers allowed to grow; 14 leaves only left on a stalk; ground leaves "primed" off. Top early, cure well, and assort properly.

TAKE NOTICE.—Those valuable preparations of Stonebraker, we have for sale, and will be furnished at 25 cents per package, by mail, postage prepaid by us—*Stonebraker's Chicken Powders, Horse and Cattle Powders, Bengal Powders*, each and all have been so long before the public, and their great value so universally recognized, that we deem it unnecessary to add a word of our own in recommendation of their worth to farmers.

AMERICAN LADIES.—The first impression Sara Bernhardt received of American ladies manifested itself thusly.—"Oh! ze ladies, za are so beautiful, such clear complexion I nevere see before," all of which is due to the universal use of Swayne's Ointment for skin diseases, which insures a clear and clean complexion, and a healthy color. This recalls to mind the divine precept "cleanliness is next to Godliness."

THE DAIRY.

For the Maryland Farmer:

The Signs of the "Zodiac."

The close observer of our daily literature cannot help but notice that there is a new trend to its import, and instead of the minor observances of clean pans, pure air, and ex-adtemperative, the matter under discussion now has shifted upon new ground. Now, upon the one hand, the breeding and feeding of cows to produce a high grade of butter is set forth, and upon the other, co operative to secure the best results of this high grade of milk by lessening the individualism, and by merging the many into the one, make a uniform, superior quality of butter, that is only produced by the few, as at present.

This is the true way to get a real genuine improvement. It will require a "geological period" to raise the billion pounds of dairy butter we now produce in this country, to a gilt-edged product of high price. To start with, breeding must base its attempts to improve quality, and quantity in milk, as it is now almost a recognized law, that this high result can only thus be obtained, and then maintained, by judicious feeding. The *accidental* in dairying cannot be relied upon very much longer, and breeding a race of cows that have the butter element predominated, must be one of the new studies of our farmers.

Why the quantity of butter is very small in proportion to the cows milked, is because the milk of all conditions, and grades of quality, are massed to make butter, milk that has resulted from heterogeneous breeding, and unsystematized feeding; milk rich in butter elements, and milk rich in caseine, and worth nothing for butter, but valuable for cheese, being mixed together, and lack of judgment in selecting and breeding cows especially adapted for the requirements of the dairy, either for butter or cheese, explains the whole matter.

The success of the future will require all guess work and hap-hazard to be left out. Many times within the past few years, the FARMER has pointed out that new calculations will have to be made or eastern dairymen will not hold their own in the race; and what is true of the Eastern, will prove as applicable to those in the more Southern sections. The paying dairy is one that is continually increasing its productions with-

out increasing their numbers. Then again this product must be actually cheapened by better feeding of home raised provender, foods that will further aid in promoting secretions of milk, adapted to the end in view: butter or cheese. It is about useless to talk of cows combining good butter and cheese qualities, the *profit* of dairying will largely come from developing the one or the other.

The many exact experiments that are now being daily made go to show that feeding suitable selections of food, shown by analysis to furnish nature with the elements required to produce a certain effect, has a vast influence in adding not only to the quality desired, but cheapens the product correspondingly. To feed a cow upon foods destitute of the albuminoids, and expect her to give an amount of milk that would pay for the food, would be a "wild speculation;" but to day, thousands of dairymen all over the country, are feeding foods of which they are totally ignorant, so far as they relate to the promotion of milk secretions. No doubt but the cows are fed abundantly, but the proportions are not balanced, and the owner is greatly perplexed over the fact that he is obtaining so small a flow of milk, or why a large quantity of milk makes so *very* little butter.

To such men dairying "does not pay." Nor will it ever until they inform themselves upon this question, not only of breeding, but also, perpetuating these qualities by proper selection, and also learns whether his foods are best designed for beef, cheese or butter, and by experiments finds out which are his butter cows, and which his cheese producers, and shapes his affairs in conformity to his deductions.

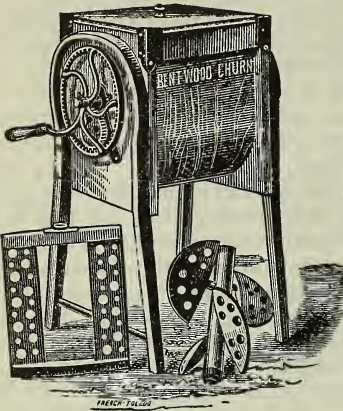
Lastly, success will come very largely by the disposition of this milk, whether made at home into a fine flavored article, which is not impossible, or made into something that will only prove a commodity to barter away for another "truck." Better than this last, would it be for a hundred farmers to co-operate, and by massing the crude products, cause it to lose its individual characteristics which it will possess if made up at home, and in the *one* complete product, gain the attention of a "cash" market.

Ohio, March, 1882.

J. G.

Thousands have used Kendall's Spavin Cure for rheumatism after all other remedies had failed, and have experienced instant relief.

We give a cut of the popular "Bentwood Churn," which appears to have many ad-



THE BENTWOOD CHURN.

vantages over other churns, and has a great reputation at present. It can be seen at E. Whitman, Sons & Co., Baltimore, Md.

Through the courtesy of Messrs. Burrell & Whitman, Little Falls, N. Y., we give illustrations of their "Cunningham Butter Worker," and their "Dog Powers," with descriptions of each.

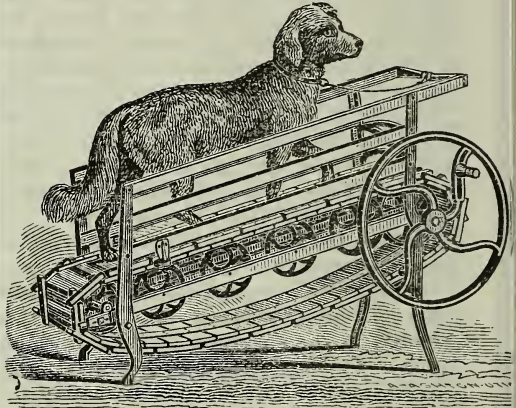
This worker has been in use nine years, and gives universal satisfaction. It consists of an eight cornered solid corrugated roller, attached to a carriage. The roller is turned by a crank with the right hand, while the left moves the carriage forward and backward through the tray. Now, by reversing the roller, while the carriage is moved forward, the butter is up into a compact mass, ready to be worked again by placing it endwise to the roller. The worker is inclined, so as to allow the brine to run off at the lower end.

It has recently been very much improved by doing away with the spiral spring and applying an adjustment instead of same, so that the roller can be raised or lowered to suit the condition of butter. All the iron work is malleable, being strong as wrought iron, and thoroughly galvanized; hence it can-

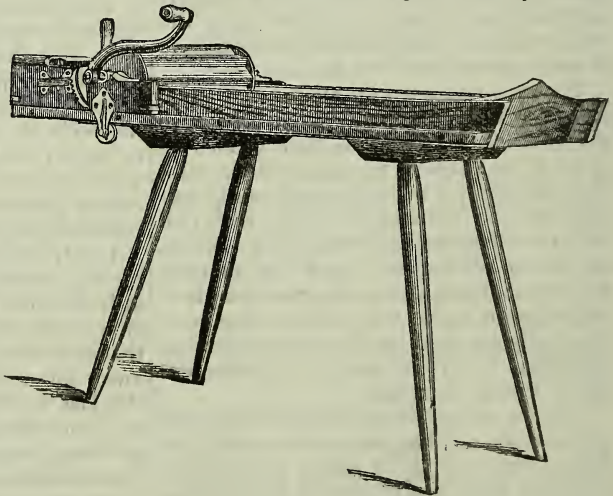
not rust. The worker is specially adapted for working over butter for re-coloring and re-packing. It is made entirely of hard wood, the tray being cherry; bearings are outside of the tray.

Dog Powers.

A 30 pound dog with this power will do the churning. A sheep is an excellent an-



imal for this power. They are intended for dairy purposes, but can be made use of wherever a lighter and portable power is desired. They are adapted for any churn.



The Cunningham Butter Worker.

They are very simple in construction and operation, and is so easily adjusted when in motion, that a child can increase or retard the speed without stopping. Every part of the machine is well made, and with a view to its utility and durability.

Publications Received.

HUBBARD'S NEWSPAPER AND BANK DIRECTORY OF THE WORLD. 2 vols. price \$10.00 This elaborate work should have been noticed before, but was crowded out by other matter. These volumes should be on the desk of every merchant, professional man and editor in this country and in the old world. It is a compendium of much information as to States and countries, a list of the principal newspapers and banks and their places of location, as well as their standing, up to the time of its publication early in the present year. It has been elegantly gotten up, regardless of expense, and really is a carefully prepared book of very valuable information to the large class of brain workers specially mentioned above. We commend it heartily to every business man as almost indispensable.

A REVOLUTION IN BOOK-KEEPING.—The whole system of of posting and balancing books in a "nut shell." T. A. Lyle, an expert accountant, has invented a curious and useful chart, entitled "*The Book-Keepers Companion*," which simplifies and shows at a glance, the whole system of keeping any set of books, and tells in an instant where each account belongs. No merchant, store-keeper, book-keeper or student should be without this remarkable work. It prevents mistakes, it saves time and will prove a perfect boon to all those who are not adepts in the art of book-keeping. Price only 75 cents. Address J. G. Beidleman, 2028 Fairmount Avenue, Philadelphia, Pa.

HINTS FOR PAINTERS, DECORATORS AND PAPER HANGERS—Price 25 cents. This is an excellent manual for such as are engaged in these employments and specially suited to the wants of amateurs.

PEACH CULTURE.—This admirable work, by Judge Fulton, is just fresh from the press of the Orange Judge Company, at only \$1.50 per copy. The author has long been a recognized authority in all matters pertaining to the Queen of all Fruits, and has lately revised his work of twelve years, making the present work the more valuable, because of the improvements that have been made at late years in the culture of the Peach, and also by reason of his ripened experience during these years, which has been enlarged by the unlimited attention he has given to the subject. The reader of the book will acknowledge the practical skill and intellectual ability of the author, Judge Fulton,

THE JANUARY, 1882—*Supplement of the Agricultural Review and Journal of the American Agricultural Association*, by Jos. H. Reall, editor and Secretary, contains all the proceedings of the last meeting of the A. A. A., including the speeches and essays read, editorials, etc., comprising a book of nearly 200 pages of very valuable matter. To be had at office of *Maryland Farmer* for the small price of 50 cents, postage prepaid.

AMERICAN POMOLOGICAL SOCIETY, SESSION OF 1881.—Is the title of a splendid volume prepared by the Secretary of the Society, Prof. W. J. Beal, Lansing, Mich. This is an instructive and elaborate report of the proceedings of the great Pomological Society of America, and should be in the hands and studied by every horticulturalist in the land. Our thanks are sincerely tendered to the learned Professor for a copy of this admirable book.

PROCEEDINGS of meetings, held February, 1882, at New York and London, to express sympathy with the oppressed Jews in Russia, is an interesting little book of 50 pages, elegantly printed, by the Industrial School of the Hebrew Orphan Asylum of New York

THE NORTH AMERICAN REVIEW for May is received, and as in all the long past, is full of interest and exhibits great ability.

THE ROSE—A treatise on the cultivation, history, family characteristics, &c., of the various groups of Roses, with accurate descriptions of the varieties now generally grown. By H. B. Ellwanger, Mount Hope Nurseries, Rochester, N. Y. Published by Dodd, Mead & Co., New York; \$1.25.

This handsomely gotten up 16mo., is the result of extensive practical experience by its author. We find in its pages all that is necessary to be known in the growing of the Queen of Flowers. It gives a list of 956 varieties, the date of the origin of each, habit of growth, description of its flowers and name of the originator. It is a pleasure to highly commend this book, because it shows great labor and care, and is both original and meritorious.

Let the poor sufferers from female complaints take courage and rejoice that a painless remedy has been found. We refer to Lydia E. Pinkham's Vegetable Compound. It is prepared at 233 Western Avenue, Lynn, Mass. Send to Mrs. Pinkham for pamphlets.

When you have got an old horse that has passed the market period, apply a bottle of Kendall's Spavin Cure and the result will be marvelous. Read advertisement.

Journalistic.

HARPER'S NEW MONTHLY MAGAZINE for May, being the conclusion of Vol 64, No 384, is a superb number, both in matter and embellishment. It is full of delightful reading and profusely illustrated with the best of wood cuts, engravings, &c. The typography and paper are unexceptionable.

AMERICAN NEWSPAPERS IN 1882.—The American Newspaper Directory, which will be issued next month by Geo. P. Rowell & Co., of New York, will contain the names of 10,611 periodicals in the United States and Territories, which is a gain of 344, in the year just passed. The number of daily papers has increased in a somewhat larger proportion and is now represented by a total of 996 against 921, in 1881. The largest increase has been in New York—10 dailies, 29 of all sorts. Illinois and Missouri show a percentage of gain which is even greater, while Colorado leads all others in the percentage of increase, both of daily and weekly issues. California, Nebraska, Nevada, Oregon, South Carolina, Tennessee, Vermont and West Virginia have fallen behind 1881 in the number of periodicals issued. In Georgia, Maine and Massachusetts the suspensions have exactly counterbalanced the new ventures. In every State not mentioned above and in the Territories there has been an increase.

THE WESTERN PLOWMAN—Is the title of a new paper, edited by J. W. Warr, and published at Moline, Illinois; on good paper, clear, large type, and as full of sensible agricultural reading matter as an egg is full of meat. It is a credit to the great West.

SOUTHERN WORLD.—A large, twice a month journal of industry, devoted to the farm, garden and work-shop, published at Atlanta, Georgia. This elegantly arranged paper is prettily embellished with wood cuts, and so ably edited, that it is an honor to the South, which is rapidly recovering from its depressed condition caused by the war, and is now on the high road to prosperity and wealth, if we judge from the tone of this new journal. That such is the fact, we believe, and rejoice in the hope that the sunny clime will speedily be a power in the land, and become all that nature's God intended her to be when He shed upon her soil so many treasures. We wish great success to our new cotemporary.

THE DAY.—Is a bright heir and successor to the dead *Gazette*—that lately gave up its chequered life so gracefully. Mr. W. T. Croasdale is the editor, and brings to the position successful experience and much ability, as well as a widespread popularity. Baltimore has now its bright "*Star*," the "*Sun*," shedding its invigorating and beneficent light over us daily, and "*The Day*," to bless us with its brightest sunshine and mellowed starlight blended in happy unison, not only on week days, but Sundays too. Long may "*The Day*," last, and prove a fortunate and blessed *Day* to us all!

Catalogues Received.

W. L. BRADBURY & Co's. Catalogue of Live Stock, Nasons, Orange Co., Va.

J. M. BAILEY'S Catalogue, Breeder's Register and Hand Books, Billerica, Mass.

JOHN SAUL'S Catalogue of Plants. Washington, D. C.

MARYLAND AGRICULTURAL COLLEGE. The stockholders of the Maryland Agricultural College met April 12th, at Barnum's Hotel, J. Carroll Walsh in the chair, Professor R. E. Nelson, Secretary. The directors on behalf of the State were represented by Barnes Compton. The present board of trustees, representing the stockholders were re-elected, viz., J. Carroll Walsh, Ezra Whitman, Allen Dodge, F. C. Goldsborough, Wilmot Johnson.

TUCKAHOE.—The bulb submitted to us by Mr. W. Duvall, Prince George's county, for name, is a fine specimen of the Tuckahoe, an Indian name for a curious plant, from which the Indians make a nutritious bread by drying, pounding into coarse meal, and baking. We expect to have an article on this curious bulb, from a learned scientist of Baltimore city.

ELEGANCE AND PURITY.—Ladies who appreciate elegance and purity are using Parker's Hair Balsam. It is the best article sold for restoring grey hair to its original color, beauty and lustre.

The highest hopes and interest of the race on the purity, health and strength of womanhood. We take great pleasure in referring our readers to the remarkable efficacy of Lydia E. Pinkham's Vegetable Compound in all that class of diseases from which women suffer so much.

Prospect of Crops for 1882.

Knowing full well the anxiety of farmers, fruit-growers, and all interested in the coming fruit and grain crops, we have been at some pains and trouble to ascertain the present true prospects, by collating all the information we can rely upon, and particularly in regard to a certain limit of territory in which our readers are more specially interested. To do so, in regard to Maryland and adjacent States, we give the replies to our inquiries, from distinguished farmers and horticulturists upon the subject

MARYLAND.

Washington County. Gov. Hamilton says:

"The outlook for wheat is good, while the area sown was about as usual. The prospect for fruit is so far good, (April 10th.) We have one canning establishment and another it is said is projected. The usual crop of corn will be planted in this county."

The Hon. R. C. Holliday, of Talbot county, says:

"The outlook for the wheat crop thus far in the season is favorable. In consequence of the drought of last summer and fall, rather a smaller area was sown in wheat than usual. The prospect for fruit is flattering. Our citizens are not largely engaged in canning and drying fruit and vegetables."

Judge J. D. Watters, of Harford county, writes us:

"The prospect for wheat is, I think, at present, unusually good. Probably not over two-thirds the usual area was sown last fall. I know of nothing thus far to injure the prospect for fruit."

"Until last season we were not within the canning district. Last year it embraced us to a very limited extent, but this year quite a number are preparing, (I fear) to get 'taken in.'"

"Probably about the usual amount of corn, or possibly, including corn for canning purposes, more." April 7th.

Judge W. Viers Bouie, of Montgomery county, says:

"The wheat crop is 25 per cent. better than last year. The area sown was 20 per cent. greater than 1880. The fruit prospect is very good. Know of no canning or fruit drying establishment in this county. There will be from 20 to 25 per cent. more corn planted this year than usual."

Hon James Clark, of Howard county, says:

"Wheat looks well; about the usual quantity was seeded. Fruit prospect good. One of my neighbors, Mr. Herbert, started a canning establishment last fall. About the usual acreage in corn will be planted, not less."

Dr. Wm. B. Bayne, of Prince George's county, says:

"The coming harvest promises to be very fine although the area sown was somewhat less than

usual. Owing to the loss of trees during the winter of 1881, the prospect for fruit is small. More corn than usual will be planted this year, in my neighborhood."

E. B. Emory, Esq., of Queen Anne's county, on the 8th of April, says:

"Average acreage of wheat was sown in fall 1881, on fallen lands, $\frac{1}{2}$ to $\frac{1}{3}$ seed failed to germinate and consequently fields look somewhat broken. Corn and wheat, generally, sowed later, good stand upon the ground, all in a healthy condition and well grown for the time of year, prospects for a good average crop."

"As to fruits: On many old orchards little new wood was made during the dry summer of 1881, and consequently, but few plump buds 1882. So far these uninjured and the outlook is for a good crop. We have one canning establishment at Sudlersville."

"Not as much corn will be planted, probably, as usual, as the ground has been so wet as to prevent winter and early spring work, and it is likely that only such land as can be plowed this month will be planted."

Saml. Vannort, Esq., of Kent Co., writes, on the 12th of April, as follows:

"The outlook for wheat was never better than the present. The area sown is about 25 per cent. greater than last year. The prospect for fruit is very fine. Last night and night before were very cold, ground froze considerably, don't know what effect it will have—nothing serious I hope."

"We have one cannery at Chestertown, and am informed there will be one near Betterton. Several evaporators have been running, and a number more will be started if the fruit crop is abundant. About the same amount of land will be planted in corn this year as usual."

Walter L. Dent, Esq., of St. Mary's county, says:

"Wheat looks better in this the 7th district, than ever I saw it look at this season of the year, (10th of April.) Much of the crop is from 8 to 12 inches high. The increase in area sown was not any. Prospect for fruit is very good. I hear of no complaint of tobacco fly—plants are up and looking well. No canning or evaporating done in this district except for family use. No more corn will be planted than usual. More manure and a better preparation of the soil will be the practice."

H. D. F. of Bel Air, Harford county, says:

"Wheat looks well, average area sown. This is the off year for apples—last year full crops. Peaches in profuse bloom, effects of frost not yet ascertained. Our people are engaged very largely in canning. New establishments for the coming season are being built and got in readiness. As to corn; plowing well advanced, average planting."

Mr. R. S. Cole, of Anne Arundel county, remarks:

"Wheat never looked better, the area sown is a trifle larger than usual. The prospect for fruit this year is extra fine for apples, peaches, pears and grapes. Raspberry and Strawberry crop likely to be short on account of killing drought."

of last summer. Two factories for canning fruit in operation, one in contemplated erection. No fruit evaporators, although this being a great fruit section, a profitable business might be carried on. More corn will be planted this year than usual in my neighborhood, it is quite likely to make up for last season.

R. D. Maynard, Esq., of Baltimore county, tells us that

"The wheat crop is generally good; about the usual amount was sown. A full crop of fruit anticipated. No canning or fruit drying done, except for private use. About usual quantity of corn will be planted. Grass is the main crop in Baltimore county.

SOUTH CAROLINA.

The Hon. D. Wyatt Aiken, writes us that:

"At present the prospect for wheat is fine. The area of oats is very large and the prospect enormously promising. The prospect for fruit was good a week ago. Have not heard since the cold snap of the 12th; think the crop will be large. I am not aware of any canning establishment, and thousands of bushels of fine fruit are annually lost in consequence. There is a fine field in my section for canning and drying. Plums, peaches, apples, cherries, blackberries, and almost all kinds of fruit in abundance. I think more corn will be planted. If not, we will have an abundance of oats to supply the lack occasioned by the disastrous drought of 1831."

NORTH CAROLINA.

Thomas M. Holt, Esq., writes:

"The prospect for wheat is the finest I have ever seen; is simply magnificent. Area sown larger than any year since the war. We have a small bug that has taken hold in several fields of *rye* in four counties that I know of, which killed the *rye* perfectly dead in a few days. Should they attack the wheat the result would be alarming, but so far the prospect is very fine. Excellent prospect for fruit, never better, will be very abundant, unless destroyed by late frost or some other cause. No canning for market. A few families '*can*' what they use. Drying fruit is quite a heavy business, all families dry more or less. I anticipate a very heavy trade in dried fruits this year. I think the usual crop of corn will be planted, but no more."

NEBRASKA.

Daniel H. Wheeler, Esq., Secretary of Nebraska State Board of Agriculture, informs us that:

"At present, (15th April) Nebraska never had as fine a prospect for good crops of all sorts; nothing but the worst kind of weather can prevent it. Corn is King, and a much larger area than ever before will be planted this year."

MASSACHUSETTS.

C. W. Wolcott, Esq., of Norfolk Co., Massachusetts, says:

"Very little wheat sown in Eastern Massachusetts, and that only for feeding green. Prospect for fruit is good. Small fruits and peach trees look very promising. More corn than usual will be planted this year. A large amount of corn, apples, squash and tomatoes are canned yearly in this vicinity."

Mr. Wm. R. Sessions, of East Long Meadow, Mass., in his reply, confirms the statement of Mr. Wolcott, above noted.

OHIO.

Geo. W. Trowbridge, Esq., of Ohio, wrote, April 15th,

"The outlook for wheat in my section is equal to the best within twenty years of my recollection, until the recent injury by frost. All that was jointed is now breaking down. The full extent of damage will not be known for a week or ten days yet. The acres sown are considerably in excess of last year, and probably as great as any ever sown previously. Prospect for fruit never more promising until the recent severe frosts. Now desolation and destruction reigns supreme. The only hope left is about one-half crop of small fruit and some of the late blooming apples. No canning establishment in my immediate neighborhood. There is a very large establishment in Cincinnati, and probably one or two small ones in the vicinity of that city. With good weather from this on, corn will be planted."

Other, and a great many accounts from Ohio are contradictory, but we infer from the whole that the area sown in wheat was less than usual for that State, but that the crop, generally, is promising. Large crops of fruit expected, and the area planted in corn this year will be an average one.

GEORGIA.

From Georgia, we are informed by Mr. W. B. Jones, April:

"More wheat has been sown in Georgia than for many years previously, and now looks well. The prospect for a good fruit crop in middle and lower Georgia, is fair for peaches and apples. The trees are in bloom and the fruit germs are healthy. More corn is planted this year in our State than has been attempted since the war. Much more attention is given to the production of food for man and beast. There are numbers of canning industries contemplated and springing up, besides the private domestic supply, which is being increased also every year. Canning and evaporating and otherwise utilizing the surplus fruit, is being annually made an industry in the centres of our fruit districts, and will become, ultimately, a profitable and attractive industry to the many who are now growing fruits for that purpose."

WHO, of our readers, will this year try ensilage on a small scale and give our readers next year the benefit of the experiment?

A VARIED PERFORMANCE.—Many wonder how Par er's Ginger Tonic can perform such varied cures, thinking it simply essence of ginger, when in fact it is made from many valuable medicines which act beneficially on every diseased organ. See other column.

The Agricultural College.

With due respect for our late law makers, a sense of public duty compels us to say that we think they committed a grave error in withholding from the Agricultural College the annual appropriation. And our surprise is increased when we remember that this wrong was inflicted upon that useful and meritorious institution in the face of a unanimous report and endorsement of the committee appointed by the Legislature to gather all the facts involved in the case. The result could not but suggest the humiliating reflection that the Legislature had given a too willing ear to the misrepresentations which have been made by a few disappointed men who desire to control the institution, recognizing no merit in the dignified and modest confidence of the worthy officials of the College who preferred rather to deal with the Legislature through its organized and legitimate methods than by the daily importunity and annoyance of outside pressure. When the Legislature recognizes this last means, it offers a premium for the practice of lobbyism which is becoming a very serious and vicious evil.

To those narrow-minded would-be economists who do not believe that agriculture should rest upon education and enlightenment, this act of the Legislature must be exceedingly gratifying, but to those liberal-minded, progressive men who think the farmer should be educated equally with other classes, the cutting off the appropriation looks like a move backward, tending rather to degrade than elevate the agricultural branch of industry. We do not envy that narrow spirit which would, through either ignorance, wantonness or deliberate purpose, endeavor to hamper or crush out an educational interest which had been established as a grand trust, through the co-operative agency of the State and private stockholders, and which had won its way to the respect and confidence of a goodly number of the best and most enterprising agriculturists of Maryland, as furnishing the nucleus of a grand and useful educational achievement for the State.

We are sorry that the College must suffer for the time being, but are confident that the next Legislature will correct the mistakes committed by the late one, and

that that institution will be demonstrating its usefulness and merit for many years after its enemies have passed away and been forgotten.

LADIES' DEPARTMENT.

Chats with the Ladies for May.

BY PATUXENT PLANTER.

MAY DAY.

"Who comes this way, with smiles so gay,
And feet so lightly tripping?
A little queen, with mantle green,
From dainty shoulders slipping.
In pink and white the blossoms bright,
Run swiftly out to meet her,
The brooks rejoice to hear her voice,
And robins sing the sweeter.

"She came last year, the pretty dear,
All frolic, fun, and dimples,
She kissed the buds, untied their hoods,
And coaxed apart their crimples;
The honey-bee flew quick to see,
The white-winged moth came after;
Oh, bonny May, in work or play,
She sets the world to laughter.

"The children go, with cheeks aglow,
And eyes that dance with gladness,
To take her hand, and join her band,
And help her banish sadness.
We skip along with shout and song,
We seek for fragrant treasure;
And every day we find a way
To fill some heart with pleasure.

"With softest bloom, the darkened room
Of sickness we will brighten;
The aching heart, with tender art,
We'll try of pain to lighten.
On many a bell, but do not tell,
If prying people ask it,
With haste and rush, and rosy blush,
We've poised a sweet May-basket.

Now that sweet May has come, let us meet it with the greeting that cheerful industry hails every thing which brings delight to the senses. May is always joyous, because bright with beauty and fragrance, and hopes of pleasure and the fruitfulness, approaching Summer is to ripen into the fulfilment of sanguine expectations.

The garden or lawn should claim your attention so that it may be put in prime order and supplied with a wealth of annual as well as perennial and other flowers, shrubs and trees, and a thick turf where that is needed. A garden to be attractive should not be laid off in formal squares and geometrical figures, but nature should be followed as closely as possible. No one can view natural scenes without being struck with what at first appears a heterogeneous mass of bewildering blendings of all characteristics, but upon a closer and more studied examination there will appear the most perfect order in all this confusion. Surprises are the chief points that one admires in walking through a flower

garden or rambling over a well planted and laid out lawn or plaisance to a rural home.

To such as can afford to expend, for a useful and convenient article in household economy and such an implement as can be used in washing windows, carriages, and watering flowers in a way that amounts to no labor, but is fun for a boy or girl, I recommend the "Whitman Fountain and Sprinkler."

The handsome picture of it here given explains sufficiently its conveniences and uses. It is highly recommended by the U. S. Agricultural Department for destroying cotton worms and as being the most practical way of applying liquid poisons economically and rapidly.

Mothers as well as children will find such gardening a pretty pastime as well as profitable employment.

In this connection, I would say to the over-worked poor woman, who truly has not time to cultivate flowers. Do not let all the pretty talk that sentimentalists get off, worry you one bit. Because you have no flowers in your yard it is no more an evidence that you have not a "beautiful" soul, than a whole garden full is a sign that your "soul" is any more "beautiful" than any one else's. My observation goes a good way to prove otherwise, for some of the most tasteful, industrious and successful cultivators of flowers I have ever seen, are among the most unbeautiful



For the Maryland Farmer.

Hints about House-keeping.

BY COUSIN MEHITABEL.

[Continued from page 137.]

Every mother should teach her children to *love flowers*, and the care of them. As soon as they are old enough to understand, let each child have a little patch of ground to plant with whatsoever best pleases. See that it is cultivated and properly cared for. Encourage them by example as well as precept. Let each little one try to excel the flowers in Mamma's garden.

souls within my knowledge.

Ladies can easily learn to *use light tools*, so as to make their own flower stakes, frames for vines, &c., and they will find a fascination in the work of which they have no idea till they try it. A few laths and lath nails, a saw and a hatchet, are all the requisites for beginning. If they mash a finger or two at first, it is nothing to care about. They will soon get well and practice will make them too dextrous to get mashed fingers.

CONCLUSION.

So important is the subject, under consideration, that, notwithstanding the length of this paper, I have only been able to glance at the different branches in the most cursory manner. To